

How will “global imbalances” end?

When we talk of “global imbalances”, we are referring to:

- *the growing external deficit of the United States, i.e. in an equivalent manner, the shortfall in savings in the United States and excess savings in other regions of the world (China for example);*
- *the excessive creation of liquidity in the world, stemming to a large extent from the refinancing of the external deficit of the United States, resulting in the excessive rise in prices of certain assets given the nature of the world’s economic equilibrium;*
- *the unreasonable fiscal deficits, in many Western or Central European countries, Japan, etc.*

These global imbalances all result from the same cause: i.e. the determination to get economies to deviate from their “fundamental” equilibrium, in terms of growth rates and exchange rates. One could naturally add other imbalances — poverty, inequalities, pollution, climatic problems, and so forth —but we restrict our study to the field of macroeconomic imbalances.

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1 – The issue of global imbalances

The first question one has to ask is: is there a problem? It is often argued in the United States that growth in the external deficit and external debt of the United States is not a ground for concern, as it corresponds to a normal and durable equilibrium between the United States and the rest of the world, or does not result from domestic imbalances in the United States. Central banks, the most often, reject the idea that in today's economies, their ultimate goal must to a greater extent consist of asset price stability than stabilising prices of goods and services. Lastly, many economists do not seem to worry about trends in public finances, and some suggest that budgetary rules are to be blamed for economic difficulties and lacklustre growth.

We believe on the contrary that there is a danger: threat of crises related to the financing of the external deficit of the United States and, because of the excess liquidity, a menace of insolvency for governments or at least an ending of useful public expenditure, because of trends in public debts.

The following scenarios can then be considered:

- either an **“intelligent correction” of global imbalances**, with economic policies aimed at gradually driving private savings upwards in the United States, e.g. a progressive increase in interest rates, and drive it downwards in other countries, e.g. in China, via the development of business loans and an improvement in social welfare; with policies seeking to reduce fiscal deficits and leading to the appearance of “Ricardian neutrality”, i.e. a fall in private savings a simultaneous increase in public savings and preventing a contraction in demand — which rules out drastic hikes in taxes such as VAT. However; there are hardly grounds to be optimistic about the likelihood that such policies aimed at ensuring an “intelligent correction” will be implemented;
- or a **brutal correction of global imbalances with crises**, with a contraction in global liquidity, a slide in the dollar, a correction in asset prices, a loss in solvency and massive increases in interest rates for excessively indebted governments. These crises could, however, occur belatedly: the initial interest of the United States and emerging countries is currently to avoid a crisis in the financing of the external deficit of the United States: the abundance of liquidity and global excess savings make it easy to finance fiscal deficits, even when they are excessive.

2 – What are the “macroeconomic” global imbalances?

We could include in the list of global imbalances many other imbalances: poverty, income inequalities, between countries and within countries, pollution and climate, but we have chosen to restrict our study to the macroeconomic field.

Global imbalances, i.e. which affect simultaneously many countries, are **then primarily**:

2 – a The growing external deficit of the United States with all other regions (Charts 1A, 1B and 1C) or in an equivalent manner, the present situation where there is a **shortfall in savings in the United States and excess savings in other countries or regions**: China, Asian emerging countries and Japan.

Chart 1A
United States: Trade balance and current-account balance (as % of GDP)

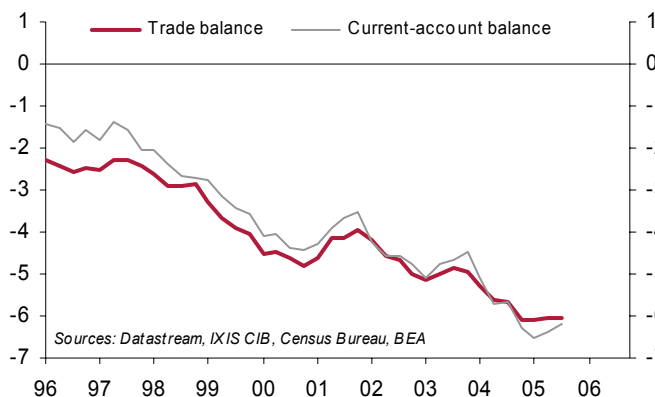


Chart 1B
United States: Trade balance (USD bn per year)

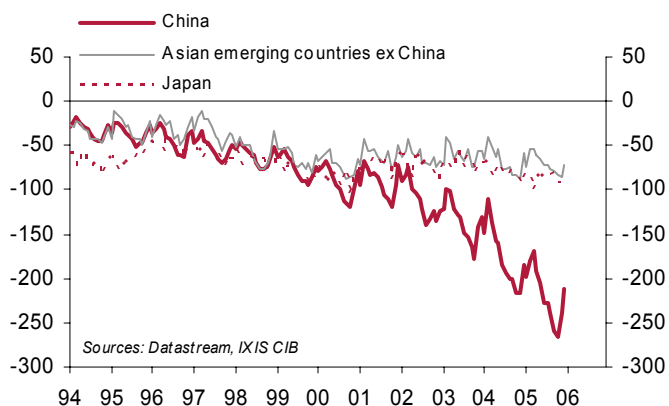
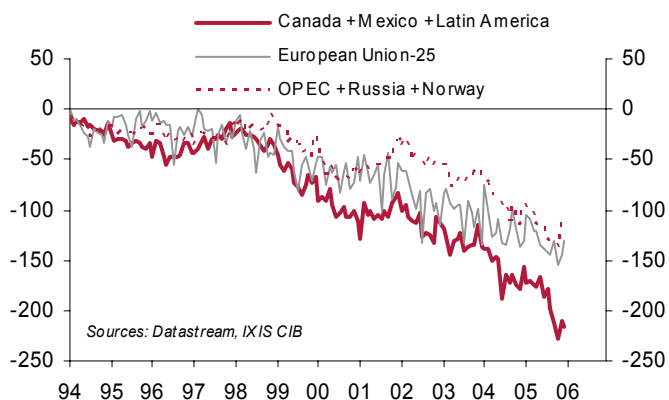


Chart 1C
United States: Trade balance (USD bn per year)



Charts 2A and 2B show the huge gap often seen between the overall national savings rate between the United States and other regions or countries.

Chart 2A
National savings rate (as % of GDP)

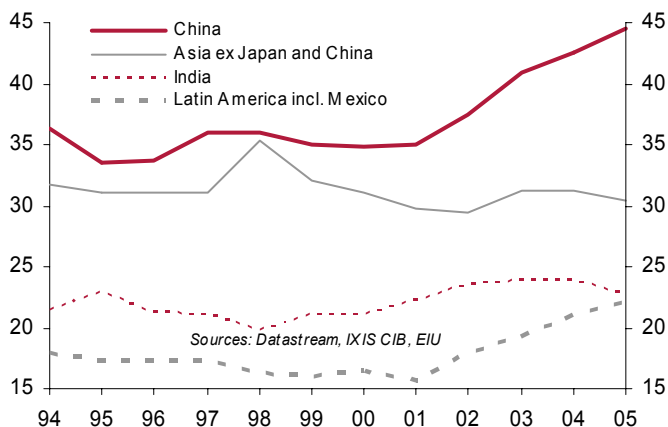
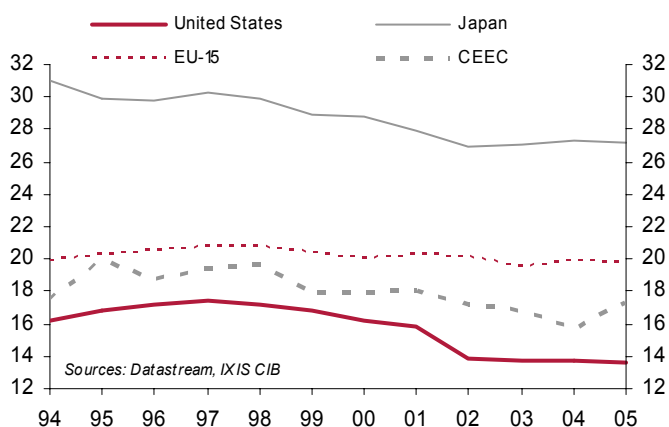
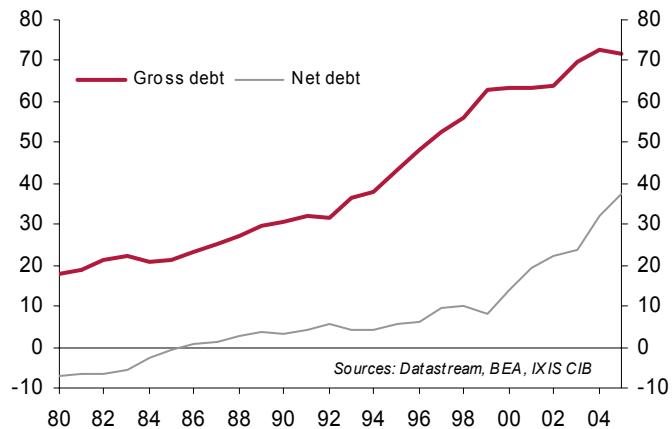


Chart 2B
National savings rate (as % of GDP)



The widening external deficit of the United States led this country, in the mid-1980s, to change from being a **net creditor to a net debtor** (Chart 3).

Chart 3
United States: External debt (as % of GDP)



Increasingly, **the world's savings is channelled into the United States**: all regions, with the exception of the United States, post current-account surpluses (Charts 4A and 4B).

Chart 4A
Current-account balance (as % of GDP)

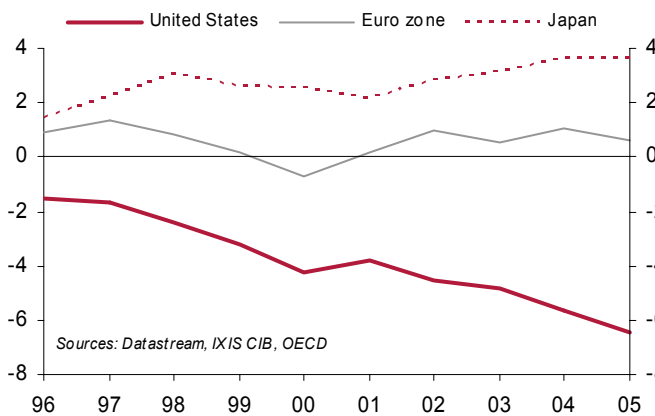
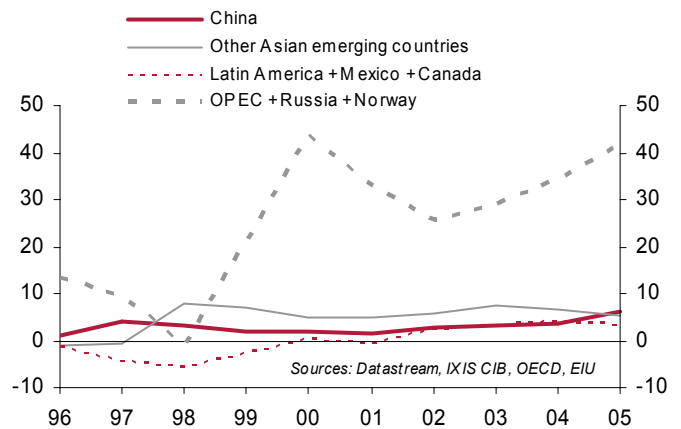


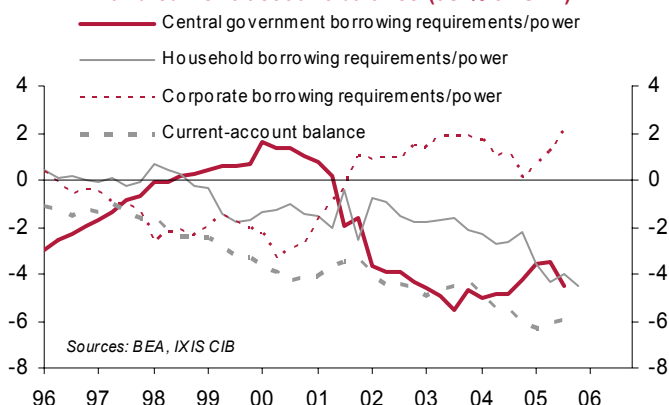
Chart 4B
Current-account balance (as % of GDP)



This channelling is obviously inefficient:

- emerging countries, even low-income ones, finance the United States, where, since per capita capital is higher, marginal capital productivity is low;
- global savings is put to **a significantly non-productive use**: finance household and central government borrowing requirements in the United States (Chart 5), and not productive investment. As is well known, notably, US companies have borrowing power and not requirements.

Chart 5
United States: Borrowing requirements/power and current-account balance (as % of GDP)



2 – b Very rapid growth in global liquidity (monetary base)

The countries that post trade surpluses with the United States want to avoid an appreciation in their currency against the dollar. To meet this goal, **they accumulate official reserves** by carrying out non-sterilised foreign exchange interventions, and this implies **monetary creation at the same time as interventions are carried out** (Charts 6A and 6B).

Chart 6A
Global monetary base (*)

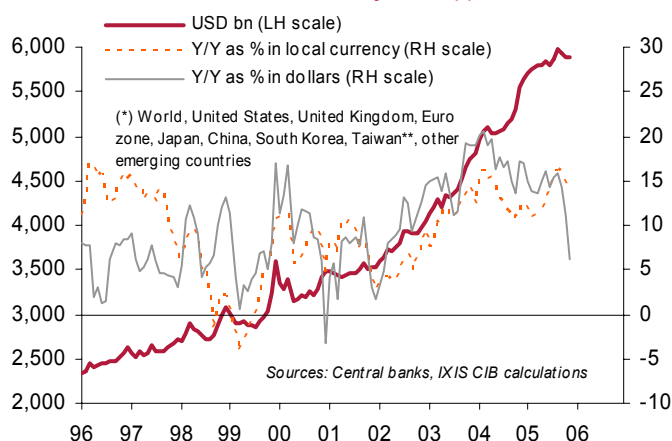
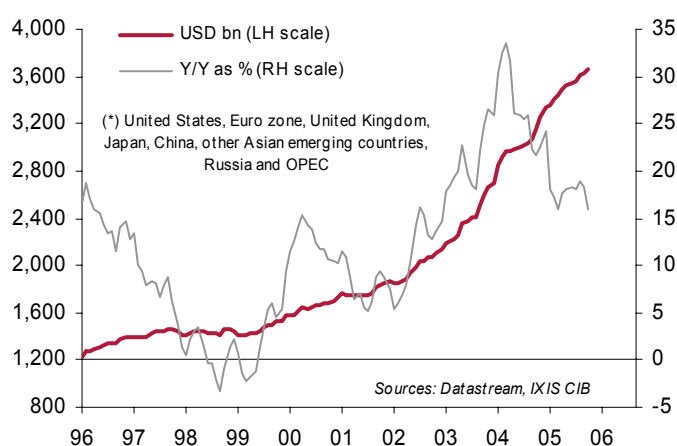


Chart 6B
Global official reserves*



Gradually, the **task of accumulating reserves has concentrated on a small number of countries**: China and commodity-exporting countries (Charts 7A and 7B).

Chart 7A
Official reserves (USD bn)

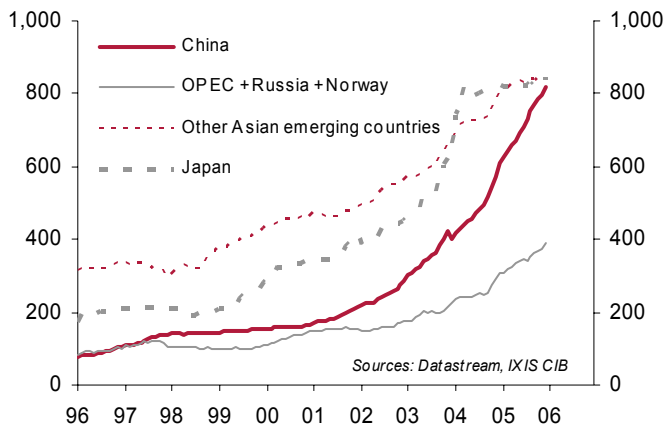
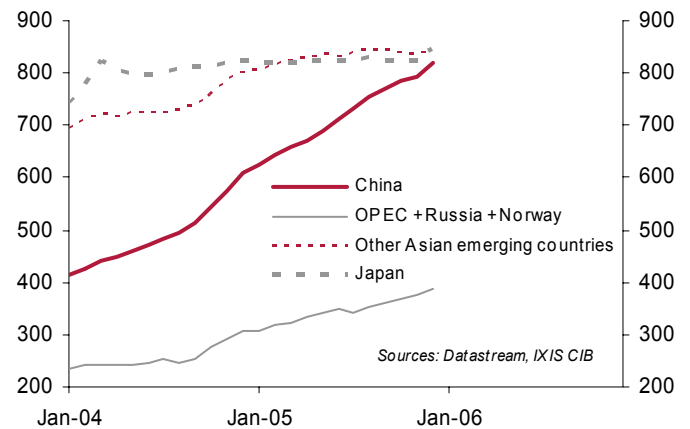


Chart 7B
Official reserves (USD bn)



For instance, in early 2004, the Bank of Japan stopped accumulating official reserves, because of the appearance of substantial short-term or portfolio capital outflows (Chart 8, purchases of money-market securities denominated in foreign currencies by Japanese retail investors), which are taking over from the accumulation of reserves.

As short-term capital outflows are exceeding Japan's external surplus, the yen is depreciating, and this is leading to a weakening in currencies of other Asian countries — South Korea, Thailand, Taiwan and Singapore. This has resulted in the end of the accumulation of official reserves in these countries (see Charts 7A and 7B). However, growth in global liquidity remains rapid (Chart 6A), far faster than in global production (Chart 9).

Chart 8
Japan: Current-account balance and short-term capital flows (as % of GDP)

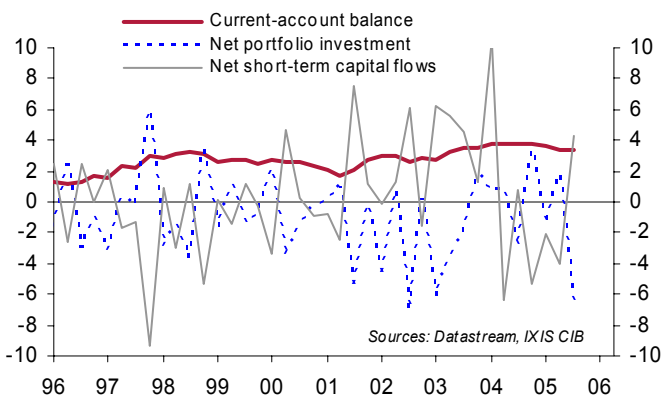
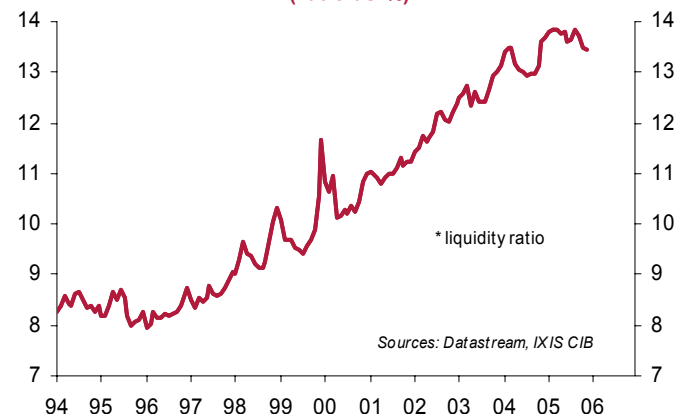


Chart 9
Global monetary base to nominal global GDP (ratio as %)



Here we need to take into account **another characteristic of the global economy: it is in a situation of Keynesian unemployment**, i.e. there is excess capacity, excess supply of goods, due to the high level and rise in the investment rate in emerging countries, particularly in Asia, (Chart 10) and unemployment — primarily hidden unemployment because of the substantial rural population that can gradually migrate into the cities (Chart 11).

Chart 10
National investment rate (as % of GDP)

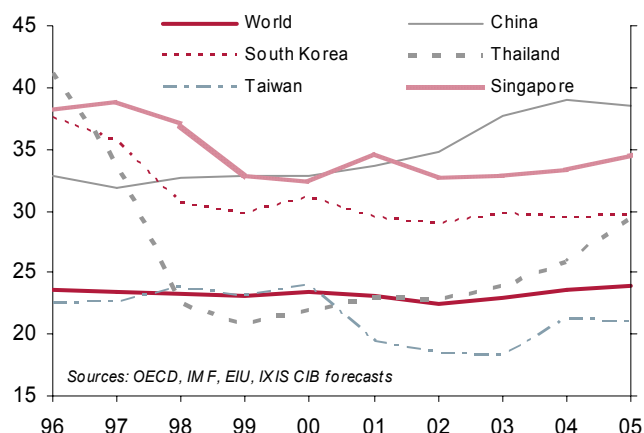
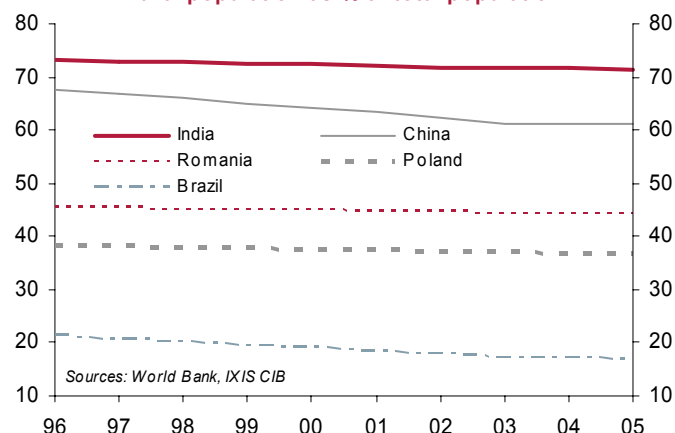


Chart 11
Rural population as % of total population



In this type of economy in a situation of Keynesian unemployment, **monetary expansion does not lead to inflation (Charts 12A and 12B)** but a **decline in interest rates (Chart 13)** and a **rise in asset prices: property, equities, corporate bonds and emerging-country securities (Charts 14A, 14B and 14C).**

Chart 12A
World*: Inflation (CPI, Y/Y as %)

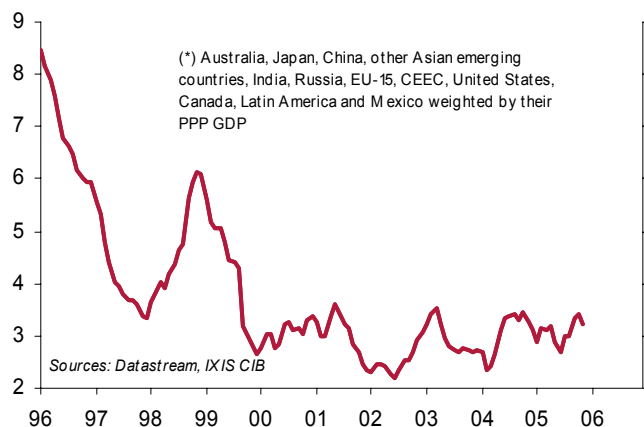


Chart 12B
Underlying inflation (core CPI, Y/Y as %)

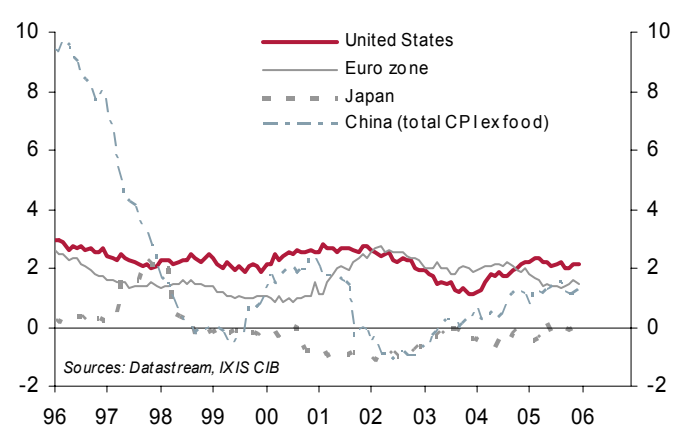


Chart 13
Long-term interest rate

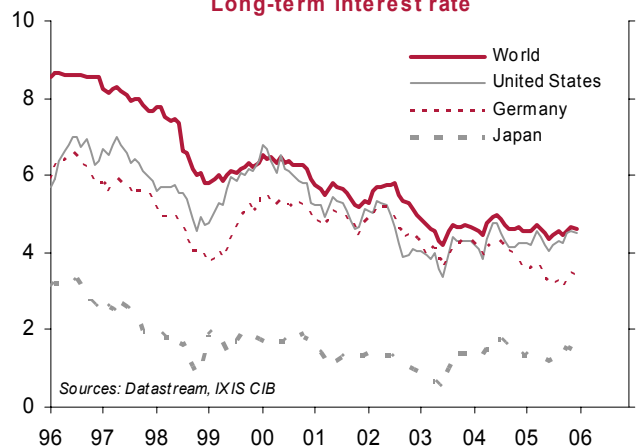


Chart 14A
Real estate prices (Y/Y as %)

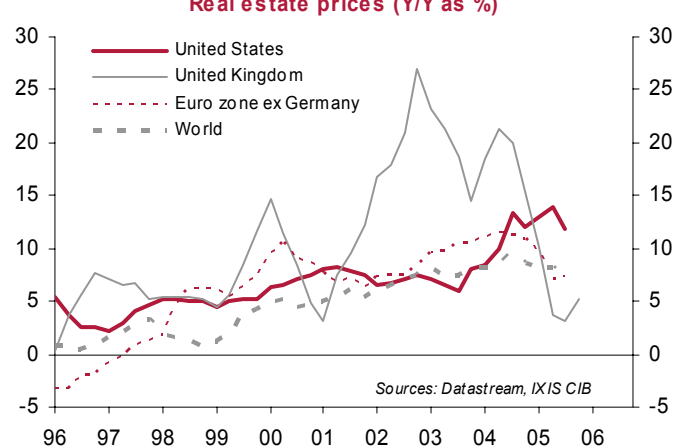


Chart 14B
Stock market indices (1994 = 100)

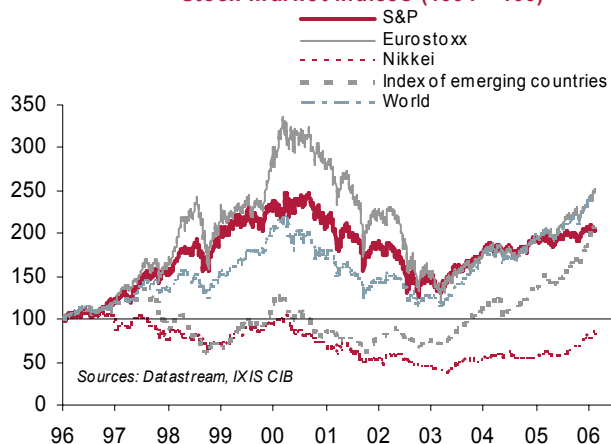
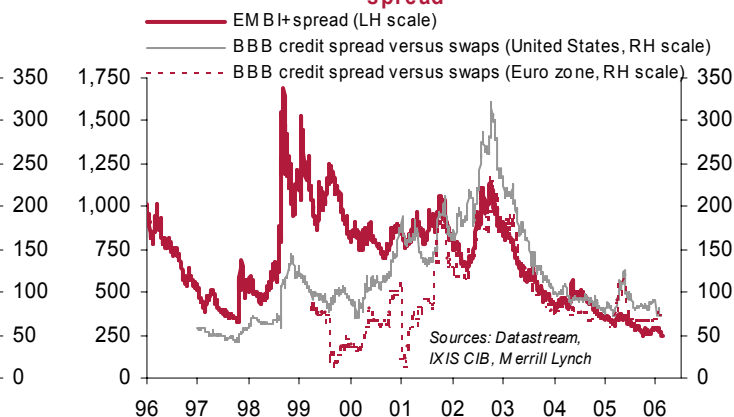


Chart 14C
Credit spread and EMBI+ (emerging countries) spread



We are reaching a situation where, because of the abundance of liquidity, **the low level of interest rates, under the nominal growth rate in many countries (Charts 15A, 15B and 15C)** induces economic agents to increase their debt load and drives asset prices upwards.

Chart 15A
United States: Growth and interest rates

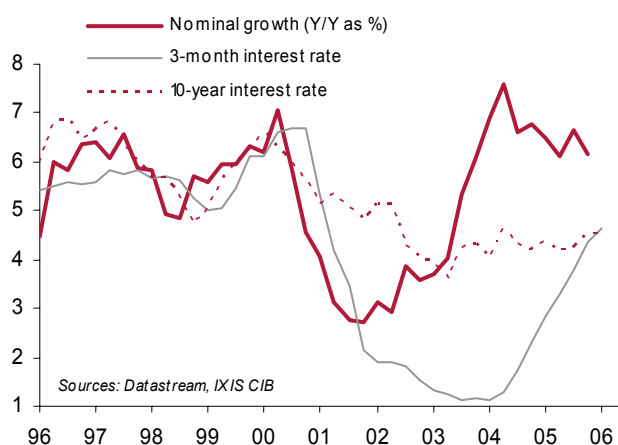


Chart 15B
Euro zone ex Germany: Growth and interest rates

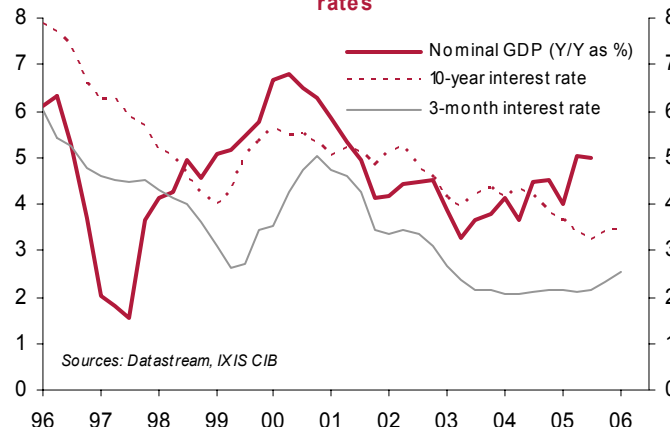
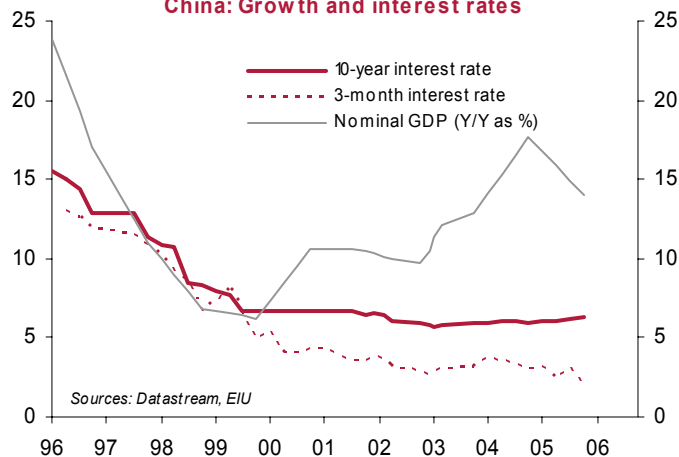


Chart 15C
China: Growth and interest rates



2 – c The substantial fiscal deficits and the loss in budgetary solvency

The recent period has also seen a vast increase in the number of countries where the fiscal deficit is large, and where the budget's inter-temporal solvency is no longer ensured large EMU countries, apart from Spain; Japan; Central European countries and the United States until the taxation of capital gains in 2005 reduced the deficit (Charts 16A, 16B, 16C and 16D), before it grew once more in 2006.

Chart 16A
Fiscal deficit (as % of GDP)

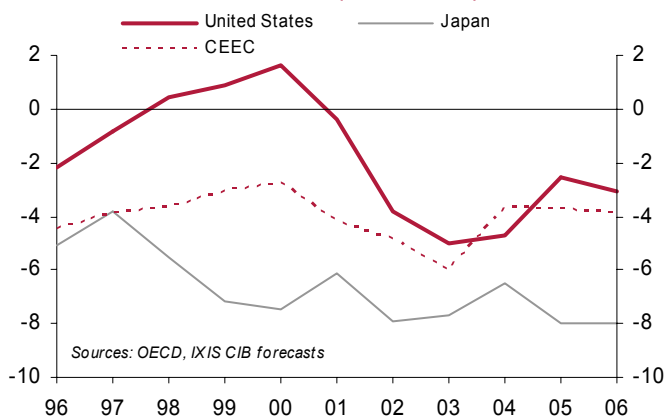


Chart 16B
Fiscal deficit (as % of GDP)

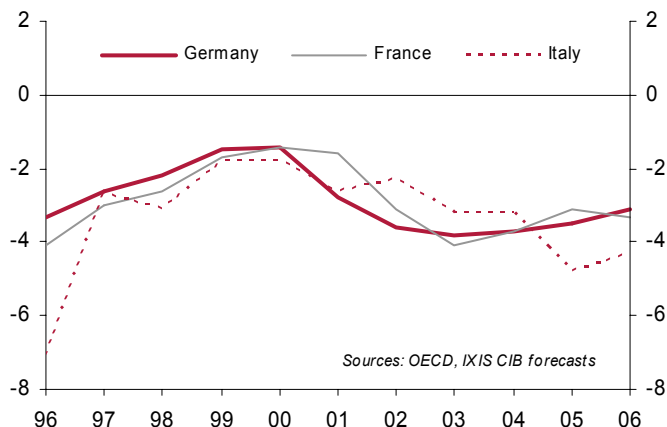


Chart 16C
Public debt (as % of GDP)

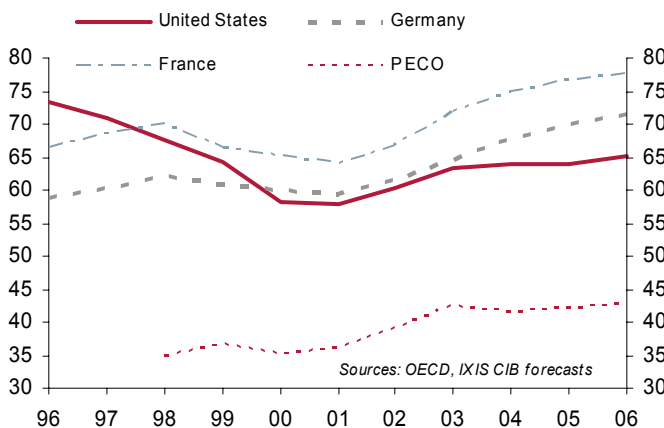
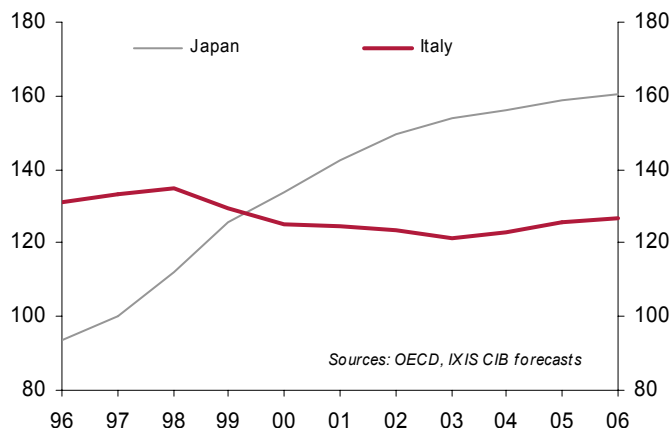


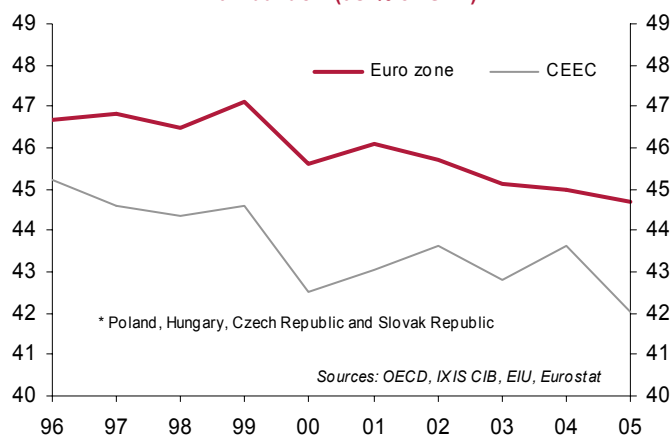
Chart 16D
Public debt (as % of GDP)



Prospects for future trends in fiscal deficits in certain cases (Europe and Japan) are worrisome owing to:

- the effects, in Europe, of **tax competition** from Central European countries that drives tax rates downwards (Chart 17);

Chart 17
Tax burden (as % of GDP)



- **necessary additional government expenditure:** research, education, infrastructure; spending related to ageing, i.e. pensions and health (Tables 1A and 1B).

Table 1A
Government expenditure on pensions (as % of GDP)

	2000	2005	2010	2020	2030	2040	2050
United States	4.4	4.2	4.2	5.0	6.0	6.4	6.6
Japan	7.9	8.0	8.1	8.2	8.3	8.4	8.5
United Kingdom	5.5	5.3	5.1	4.9	5.2	5	4.4
Germany	11.8	11.5	11.2	12.6	15.5	16.6	16.9
France	12.1	12.2	13.1	15.0	16.0	15.8	15.6
Italy	14.2	14.1	13.9	14.8	15.7	15.7	14.1
Spain	9.4	8.8	8.9	9.9	12.6	16.0	17.3
Netherlands	7.9	8.3	9.1	11.1	13.1	14.1	13.6
Portugal	9.8	10.8	12.0	14.4	16.0	15.8	14.2
Belgium	9.3	8.7	9.0	10.4	12.5	13.0	12.5
Greece	12.6	12.6	12.6	15.4	19.6	23.8	24.8
Austria	14.5	14.7	14.9	16.0	18.1	18.3	17.0
Ireland	4.6	4.8	5.0	6.7	7.6	8.3	9.0
Finland	11.3	11.45	11.6	12.9	14.9	16.0	15.9
Luxembourg	7.4	7.45	7.5	8.2	9.2	9.5	9.3

Table 1B
Government expenditure on health (as % of GDP)

	2000	2050
United States	13.1	16.5
Japan	5.8	8.2
United Kingdom	9.1	11.3
Germany	10.3	13.6
France	9.8	13.0
Italy	7.5	10.7
Spain	7.3	10.9
Netherlands	10.6	14.0
Portugal	9.2	12.6
Belgium	9.0	12.4
Greece	9.2	11.0
Austria	7.5	10.7
Ireland	6.3	9.8
Finland	8.1	11.9
Luxembourg	6.0	9.4

Sources: OFCE-DREES, Belgian Federal Planning Bureau, Eurostat

These three categories of global imbalances are related: the external deficit of the United States generates the increase in liquidity via the accumulation of official reserves. The abundance of liquidity drives down long-term interest rates and facilitates the financing of fiscal deficits.

3 – The common cause of global imbalances

These global imbalances (trade deficits and surpluses, very rapid growth in liquidity and excessive fiscal deficits) have a common cause: the determination **to get economies to deviate from the equilibrium corresponding to their fundamental situation.**

For instance:

- expansionary policies in the **United States** are aimed at obtaining higher growth in the country than would normally be possible given the stagnation of industrial production (ex IT, **Chart 18**). The result of the interaction between the expansionary policies and the stagnation in industrial production is the growing external deficit of the United States seen above, due to the negative effect on household savings of expansionary policies and the rise in asset prices (**Chart 19**).

Chart 18
United States: Industrial production ex IT, domestic demand, imports
(in volume terms, 1996 = 100)

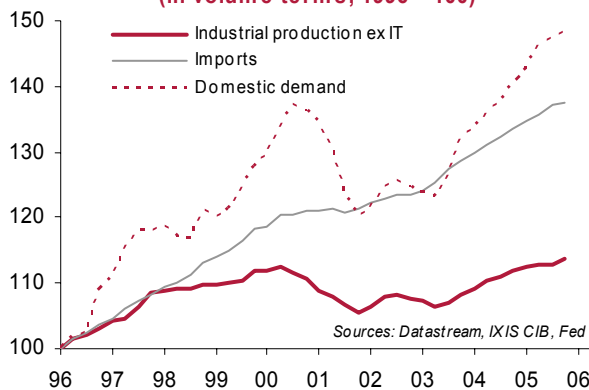
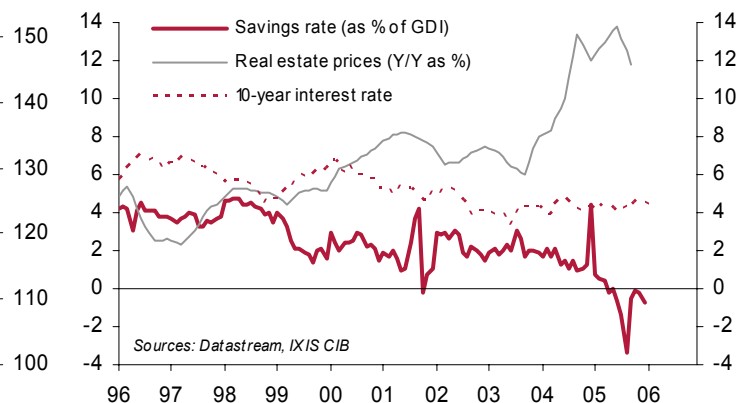


Chart 19
United States: Savings rate, real estate prices and 10-year interest rate



- the accumulation of official reserves, in emerging countries, notably in **China**, is aimed at preventing the appreciation in the exchange rate that would normally result from the very high level of the savings rate (**Charts 2A and 2B**). Such an appreciation would be dramatic for Chinese economy as exports are its crucial driving force of growth (**Chart 20**) and generate significant excess capacity.
- the fiscal deficits in the **euro zone** are aimed at achieving higher growth than potential growth, which is very low due to the **poor level of productivity gains** (**Chart 21**), as well as the **shortfall in the research and higher education drive** (**Tables 2A, 2B, 2C and 2D**).

Chart 20
China: GDP and exports (in volume terms, as %)

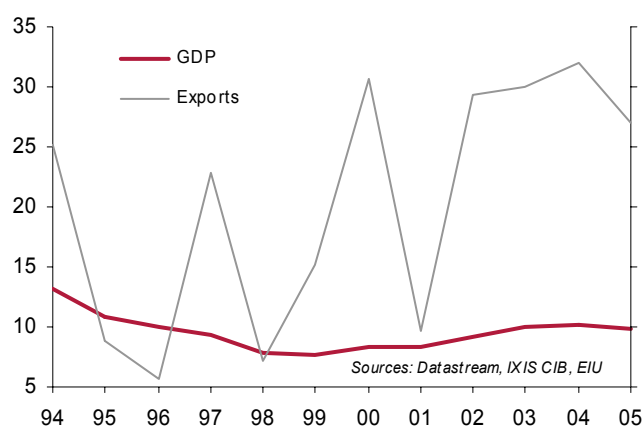


Chart 21
Euro zone: Growth and per capita productivity (Y/Y as %)

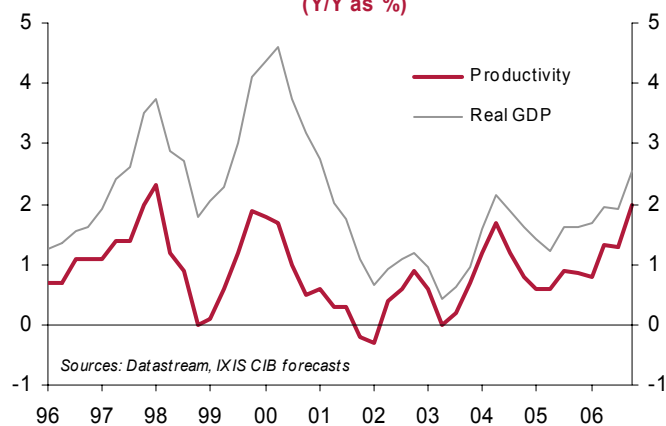


Table 2A
Gross domestic expenditure on R&D (as % of GDP)

	In companies			Total		
	United States	Euro zone*	Japan	United States	Euro zone*	Japan
1997	1.91	1.14	2.05	2.58	1.82	2.83
1998	1.95	1.15	2.10	2.60	1.83	2.94
1999	1.98	1.20	2.10	2.65	1.87	2.94
2000	2.04	1.23	2.12	2.72	1.91	2.98
2001	2.00	1.24	2.26	2.74	1.94	3.09
2002	1.87	1.25	2.32	2.67	1.96	3.12
2003	1.79	1.23	2.38	2.62	1.93	3.15

Sources: OECD, Eurostat

Table 2B
Number of corporate researchers (per 10,000 jobs)

	United States	Euro zone*	Japan
1998	74.13	26.41	65.89
1999	76.08	28.09	67.12
2000	75.78	28.85	65.37
2001	72.00	29.74	67.17
2002	71.00	30.41	68.11
2003	73.71	30.92	72.65

Sources: Science, technology and industry: OECD Outlook 2002-2005

Table 2C
Number of triadic patents (per million inhabitants)

	United States	Euro zone*	Japan
1997	52.26	39.61	87.38
1998	47.74	43.04	89.00
1999	59.91	44.56	93.49
2000	63.68	48.69	97.34
2001	63.83	49.39	101.63
2002	63.64	49.03	103.54

Sources: Table No. 65 - Main Science and Technology Indicators 2004, OECD
 (*): By weighting of the four largest euro-zone countries, Ixis CIB calculation

Table 2D
Spending on higher education by student
(in equivalents of USD converted on the basis of PPP)

	1999	2000	2001	2002
United States	19,220	20,358	22,234	20,545
Japan	10,278	10,914	11,164	11,716
Euro zone*	8,524	9,085	9,214	9,657

()By weighting of four largest countries*

Source: Education At A Glance, OECD 2005

We thus know, at this stage, what the global imbalances are and what accounts for them. We still need to ascertain:

- **how serious the global imbalances are;**
- **the “intelligent” or “drastic” nature of the correction of these imbalances in the future.**

4 – Is there in fact a problem? The case of the external deficit of the United States and surpluses of other countries

The causes of the external deficit of the United States, and the growing external surpluses of other countries, notably China, are well known and are found in both cases in the United States and in the countries posting a surplus:

- **in the United States, the combination of the significant increase in household spending**, due to capital gains and the economic policies that have been implemented, as well as the incapacity of smokestack industry to meet the rise in domestic demand;
- **in emerging countries** (in China), the **very high level of savings** leading to the need to drive growth by exports, resulting in the need to stabilise exchange rates, the **accumulation of official reserves**, and a very expansionary monetary policy that favours excess investment (reinforced also by direct investment) and fuelling the need to export;
- furthermore, **these effects fuel one another**: the accumulation of official reserves increases global liquidity, leads to a rise in asset prices and a decrease in interest rates, and further stimulates private demand in the United States.

We would like to examine here the **validity of various arguments that have been propounded to try and demonstrate that this trend in current-account balances between the United States and the rest of the world is not worrisome and even sustainable and efficient, or alternatively did not result from an imbalance in the United States**. What arguments are put forward to back such claims?

1. It is claimed that the external deficit of the United States merely reflects the **determination of private investors and companies to hold a substantial amount of American assets (in dollars)**, because of the quality of assets and financial markets in the United States, the expectation of high returns on these assets, either intrinsically (higher productivity gains in the United States), or because of the dollar's appreciation, or the rate hikes in the United States.
2. **The central banks of emerging countries (China notably) allegedly have no other choice than to continue to accumulate official reserves** in dollars to prevent the appreciation in their currencies, as long as domestic demand in these countries will not be able to take over from exports as the engine of growth.

3. The current-account deficit of the United States is said to be just a small adjustment line resulting from **the role of a financial intermediary played by the United States**, which receives capital from the rest of the world to reinvest it in the rest of the world. This also implies **holding assets in foreign currencies in the United States**, and this increases the improvement in the current-account balance if there is a depreciation in the dollar because of the **rise in the value in dollars** of income received on these assets.
4. **The problem, it is claimed, does not come from the United States but the rest of the world** (Europe, Japan, China, etc.) where there is a shortfall in demand and growth, and **excess savings**. It is therefore necessary to correct the economic policies implemented outside the United States.
5. **The trade deficit in goods in the United States is said to be offset by a trade surplus in services.**
6. **It is argued that there is no shortfall in household savings in the United States, simply optimal inter-temporal smoothing of consumption** by US households as they know that, owing to the rise in potential growth, their future income will be higher.

We are going to show that these **six arguments are not correct, and the situation in current-account balances, on the one hand, poses a problem and, on the other hand, is caused to a large extent by domestic imbalances in the United States.**

What is to be thought of these “optimistic” arguments?

Argument no. 1: The external deficit of the United States results from the will of private investors to hold more assets issued in the United States

We will now review the arguments outlined above that seek to demonstrate that the imbalances in current-account balances are not dangerous, are sustainable in the long term, or do not result from domestic imbalances in the United States.

The basic idea here is that **the expected return on assets issued in the United States** is higher than on assets issued in the rest of the world, because productivity gains are larger in the United States (**Chart 22**), because its financial markets are more liquid and larger (**Chart 23**).

Chart 22
Per capita productivity (Y/Y as %)

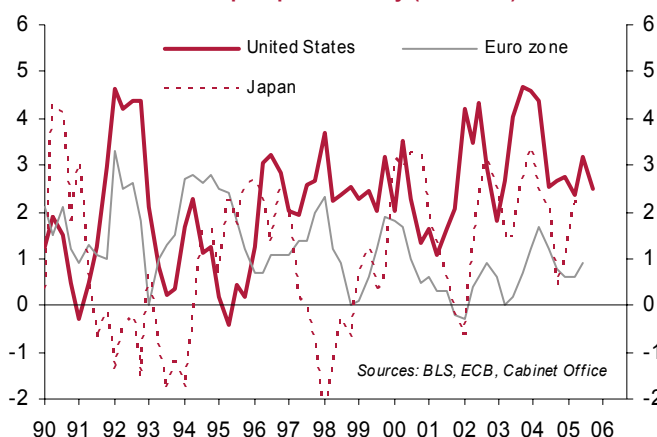
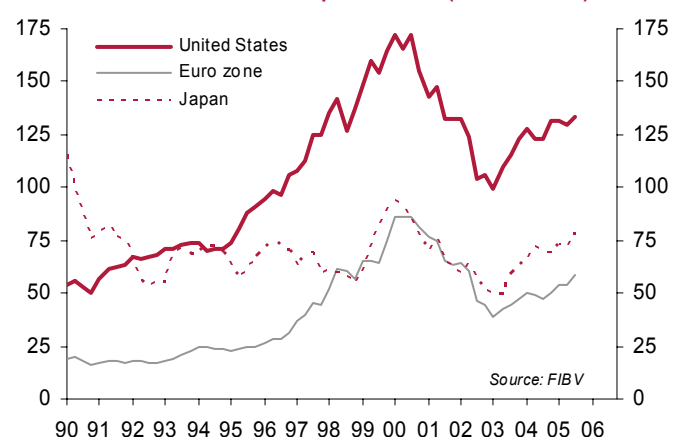
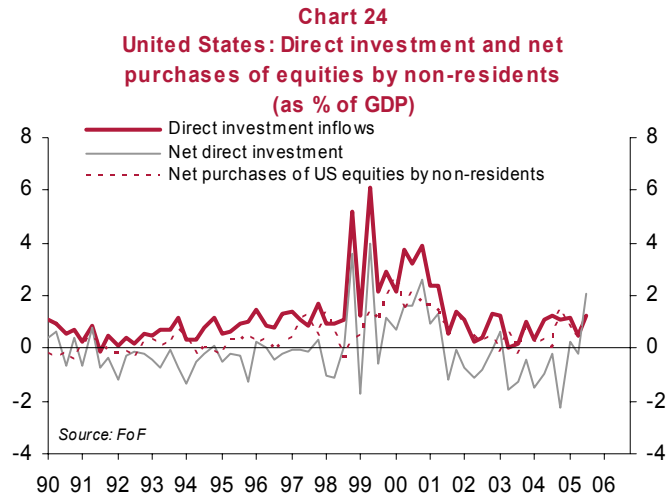


Chart 23
Stock-market capitalisation (as % of GDP)

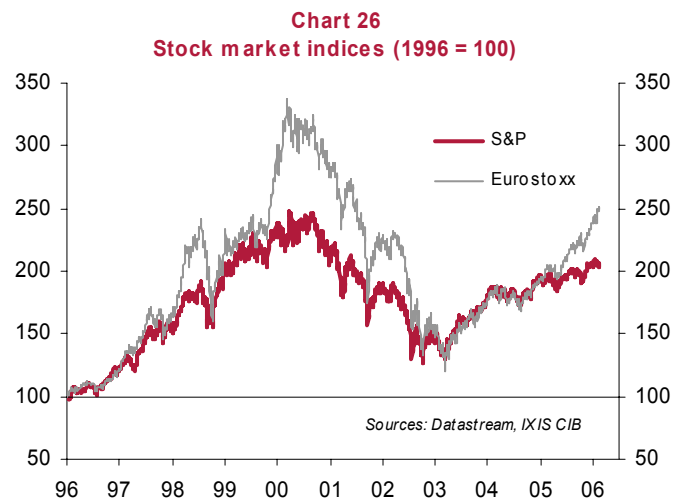
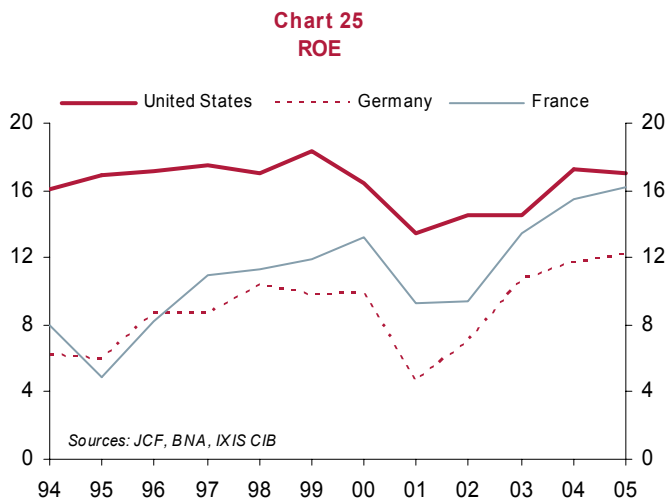


This argument does not seem convincing:

- with the exception of a brief period (1998-2000), **capital flows purchasing private assets in the United States** (direct investment and purchases of equities) **have been small (Chart 24)**; although they picked up slightly in late 2005.



- the return on equity of listed companies (ROE, **Chart 25**) is as high in Europe as in the United States, the **European stock market has outperformed the US market (Chart 26)** in the last few years;



- the higher productivity gains in the United States are primarily accounted for by **high-technology industry and retailing**. Industry ex IT, which accounts for most of the sector of traded goods, records very low productivity gains (**Charts 27A and 27B**).

Chart 27A
United States: Per capita productivity
(as % per year)

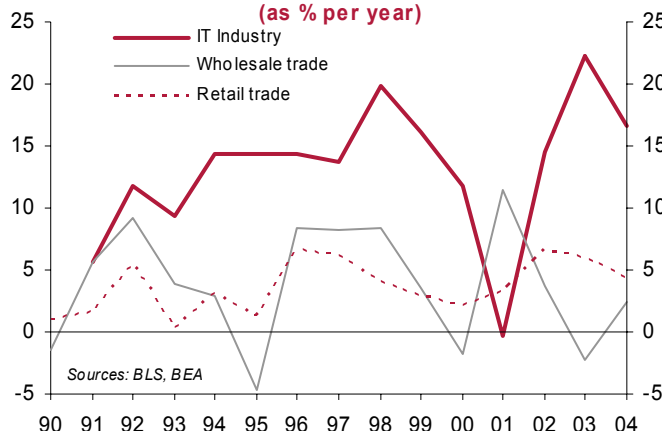
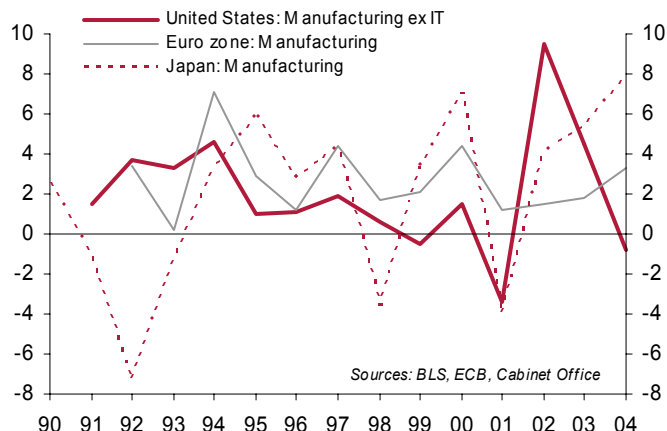


Chart 27B
Per capita productivity (as % per year)



Argument no. 2: Asian central banks (and those of oil-producing countries) have no other choice than to continue stabilising the dollar by accumulating official reserves (the so-called “Revived Bretton-Woods System” argument).

The accumulation of official reserves (in which the dollar has a dominant position, **Table 3**) has played, since the beginning of the decade, a major role in the financing of the external deficit of the United States (**Charts 28A and 28B**).

The argument here consists in asserting that, as emerging countries have high savings rates, domestic demand cannot sustain growth sufficiently in these countries and **their growth has to be driven solely by exports** (**Chart 29**), explaining the need to stabilise exchange rates against the dollar.

The argument of excess savings also holds for Asian emerging countries such as China (**Chart 30**), as well as oil-exporting countries that save a substantial share of their additional oil income (**Chart 31**).

Chart 28A
United States: Current-account balance, global official reserves and net purchases of bonds
(as % of US GDP)

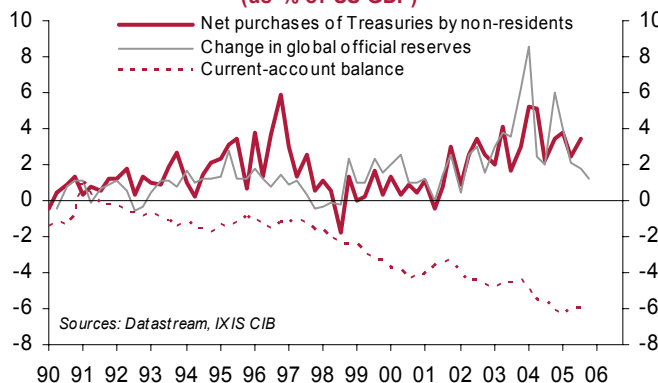


Chart 28B
Global official reserves*

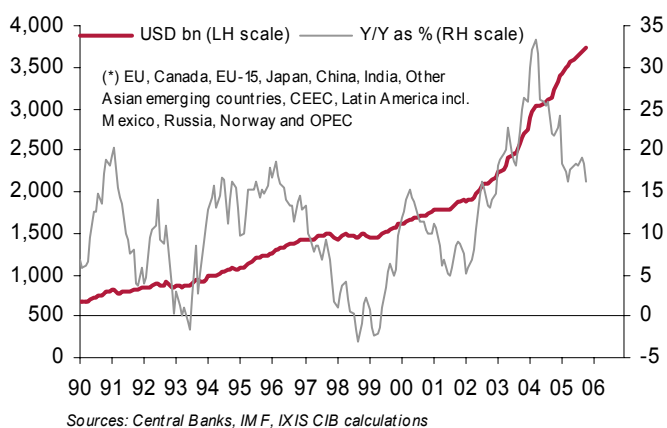


Chart 29
Exports (in volume terms, as % per year)

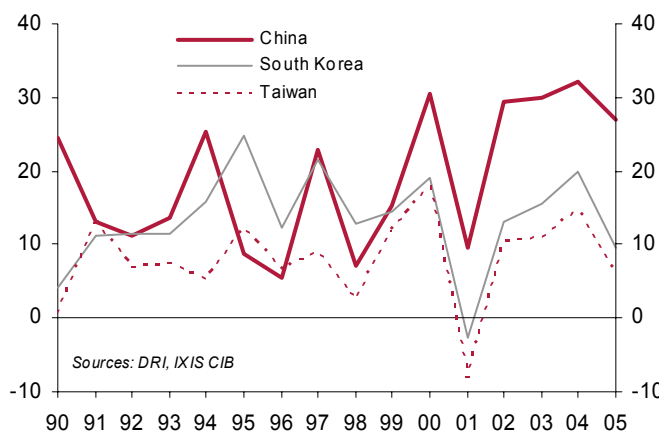


Chart 30
National savings rate (as % of GDP)

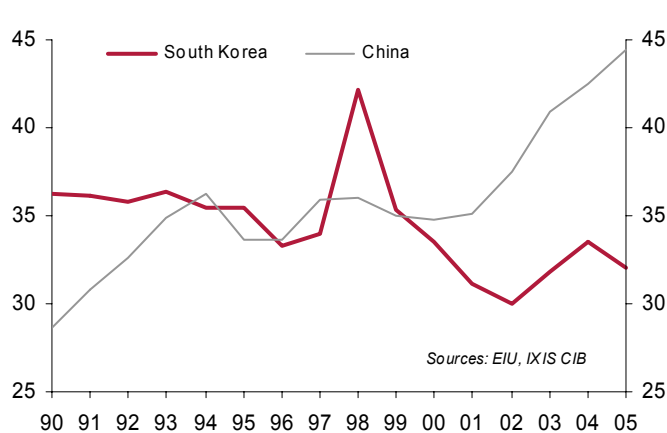


Chart 31
Current-account balance (as % of GDP)

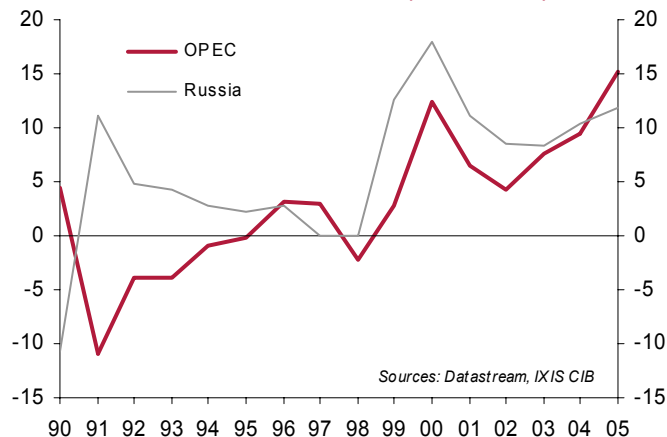


Table 3
Weight of different currencies in official reserves, end of year

All countries										
as %	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
US dollar	53.1	53.4	56.8	59.1	62.6	64.9	66.6	66.9	63.5	63.8
Yen	7.8	6.7	6.0	5.1	5.4	5.4	6.2	5.5	5.2	4.8
Sterling	2.8	2.8	3.0	3.3	3.5	3.6	3.8	4.0	4.4	4.4
Swiss franc	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.6	0.4
Euro	16.0	16.0	14.9	14.2	13.8	13.5	16.3	16.7	19.3	19.7

Industrialised countries										
as %	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
US dollar	50.8	51.8	56.1	57.9	66.7	72.7	72.5	72.7	69.1	70.8
Yen	8.2	6.6	5.6	5.8	6.6	6.5	6.3	5.6	4.6	4.0
Sterling	2.3	2.1	2.0	1.9	2.2	2.3	2	1.8	2.2	1.7
Swiss franc	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.6	0.2
Euro	18.7	18.7	17.3	16.8	14.7	10.8	17.2	17.5	21.3	20.9

Developing countries										
as %	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
US dollar	55.6	55.1	57.4	60.2	59.4	59	62.2	62.9	59.8	59.3
Yen	7.5	6.8	6.4	4.6	4.4	4.6	6.1	5.4	5.5	5.2
Sterling	3.5	3.4	3.9	4.4	4.4	4.6	5.1	5.4	5.8	6.2
Swiss franc	1.2	0.9	0.9	0.7	0.7	0.7	0.7	0.6	0.6	0.6
Euro	14.3	13.3	12.6	12.1	13.1	15.6	15.6	16.2	17.9	18.9

Sources: OECD, IMF
 Estimates made by IXIS CIB

The accumulation of official reserves fuels the need to export, since it implies a **very expansionary monetary policy**, with far too low interest rates (like notably in China, **Chart 32**), and this has helped stimulate investment and the building-up of new production capacity (**Charts 33A and 33B**) and further reinforces the need to export.

Chart 32
 China: GDP and interest rate

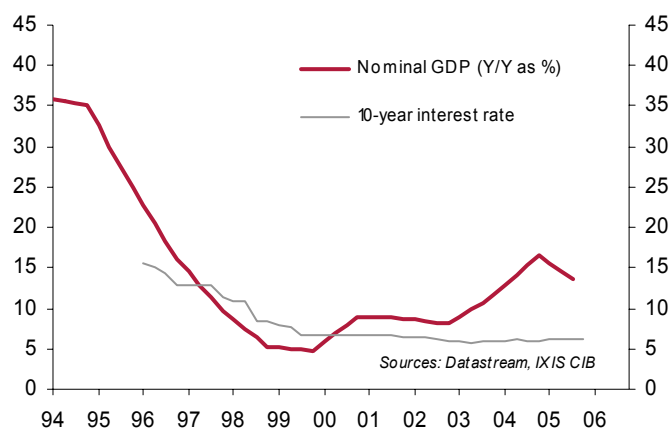


Chart 33A
 China: Investment
 (in volume terms, as % per year)

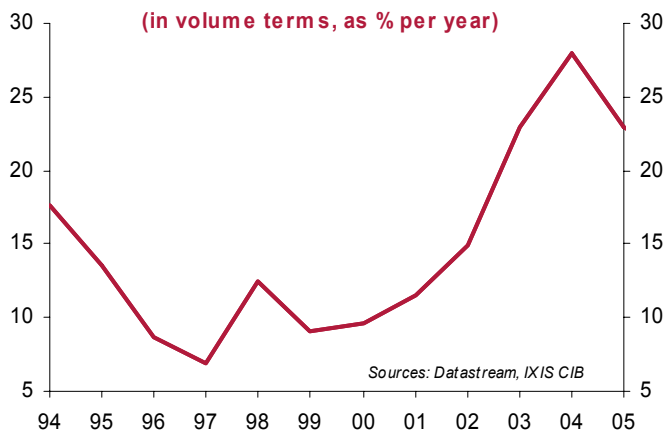
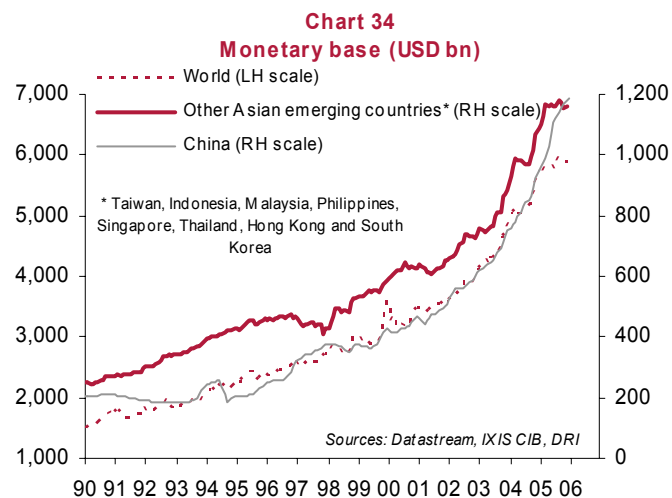


Chart 33B
 China: Investment (in value terms, Y/Y as %)



This argument (i.e. “mercantilism in emerging countries”) has certainly held for several years, since domestic demand is effectively too weak to drive growth, but not in the long term:

- the endless accumulation of official reserves in dollars in emerging countries would imply that these countries would definitively keep the dollar as their *de facto* currency; however, in the long term, these countries want to have an autonomous currency, with interest rates set according to domestic economic conditions, and not dollar interest rates;
- the emerging countries that accumulate reserves are hurt by serious drawbacks related to this accumulation: distortion of interest rates (seen above), and, therefore, risk of excess investment; excessive growth in the monetary base (Chart 34), and, accordingly, bubbles in asset prices, and so forth.



Arguments no. 3: The external deficit of the United States is a simple adjustment item due to the role of the world's financial intermediary played by the United States; this role implies, furthermore, a favourable effect of the depreciation in the dollar because of the holding of assets denominated in foreign currencies

The first argument here is that the **current-account deficit is very small** in relation to capital inflows and outflows due to the **activity of financial intermediation** of the United States. This activity is carried out via the indebtedness of the United States in the form of low-risk securities (short-term securities and government bonds) and risky investments of the United States in the rest of the world (direct investment, equities) that the United States know better how to carry out than the rest of the world.

Charts 35A, 35B and 35C show the outstanding assets and liabilities, for the various financial assets, of the United States versus the rest of the world. The intermediation argument is unconvincing:

- the liabilities of the United States are far larger than its assets;
- they include as many corporate securities as its assets.

Chart 35A
US assets in the rest of the world (USD bn)

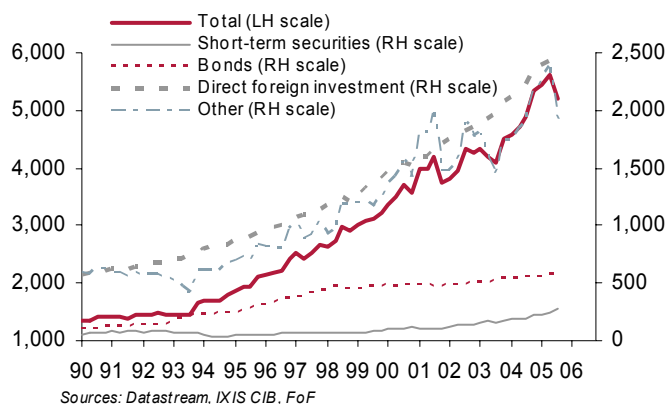


Chart 35B
US liabilities in the rest of the world (USD bn)

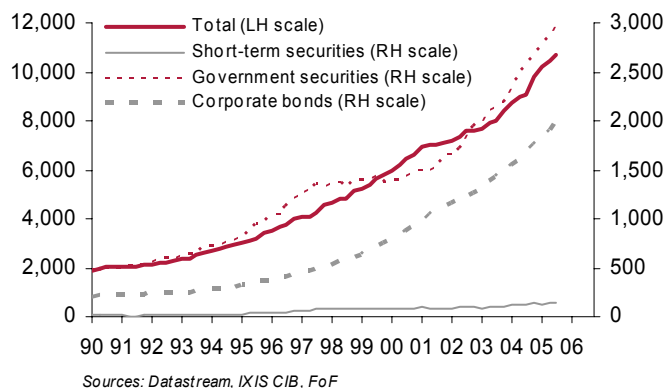
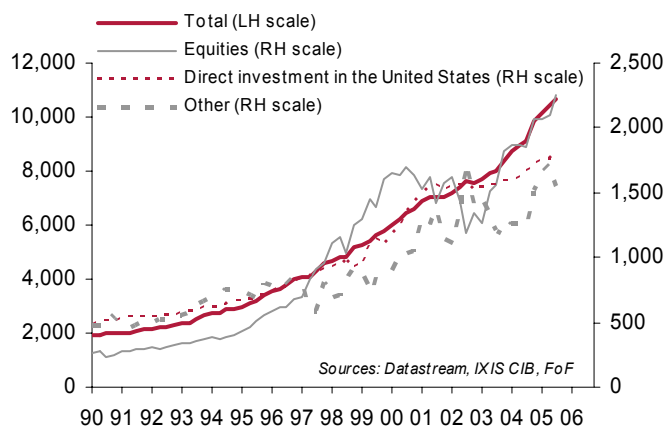
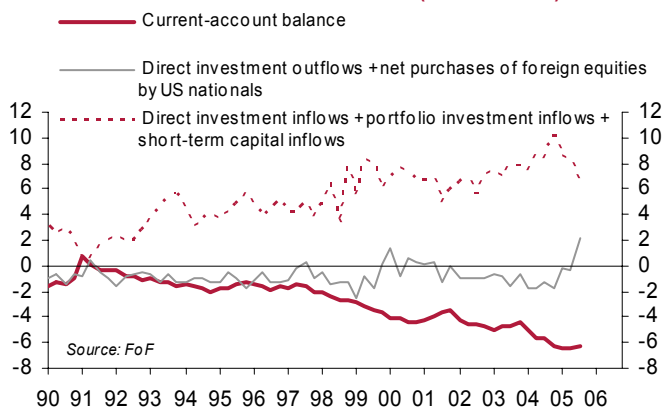


Chart 35C
US liabilities in the rest of the world (USD bn)



Recently, furthermore, investment flows into equity securities from the United States into the rest of the world have been very small in comparison with the external deficit and capital inflows into the United States (Chart 36). This role of a financial intermediary played by the United States is therefore secondary.

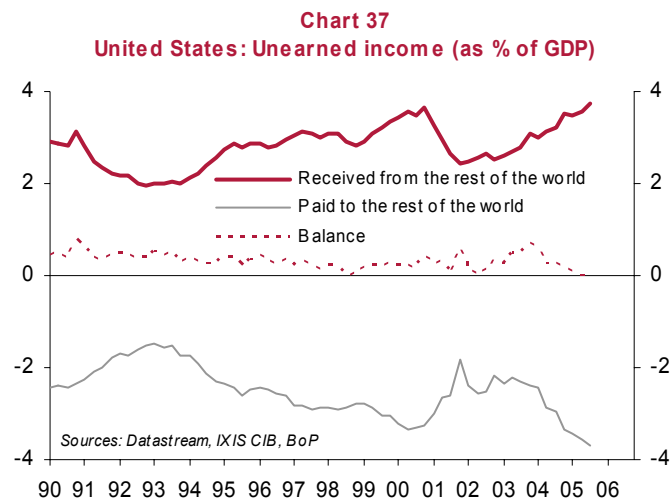
Chart 36
United States: Capital inflows and outflows and current-account balance (as % of GDP)



The second argument here is that the United States holds assets denominated in foreign currencies in the rest of the world and, therefore, a depreciation in the dollar would result in a capital gain on these assets. But, to compare these assets with the external deficit, one needs to think in terms of flows.

Let us draw on a *reductio ad absurdum*: we assume that all assets held abroad by the United States pay income in foreign currencies, something that does not hold — in these assets there are credits in dollars, companies that receive income in dollars, etc. The depreciation in the dollar would then increase income, denominated in dollars, received on these assets by the amount of the depreciation.

Given the size of unearned income flows (Chart 37), a 10% depreciation in the dollar would reduce, via this effect, the current-account deficit of the United States by 0.4% of GDP. It is estimated that a similar 10% depreciation in the dollar would improve the trade balance of the United States by the equivalent of 0.5% of GDP. The depreciation required to wipe out the current-account deficit of the United States is huge, even when we take into account the effect of the valuation of assets denominated in foreign currencies.



Argument n. 4: The external deficit of the United States does not result from a domestic imbalance in the United States but from excess savings in the rest of the world

Admittedly, the savings rate in Japan, China and the other Asian emerging countries is higher than in the United States and higher than the investment rate in the euro zone.

But the important question is as follows: if emerging countries, the euro zone and Japan invested more (ex ante), or consumed more (ex ante), would this lead to an ex post reduction in the US trade deficit?

We believe the answer is negative. The external deficit of the United States is linked to the incapacity of smokestack industry in the United States to meet, since the second half of the 1990s, domestic (Chart 38A) and external (Chart 38B) demand.

Chart 38A
United States: Industrial production, domestic demand, imports
(in volume terms, Q1 1990 = 100)

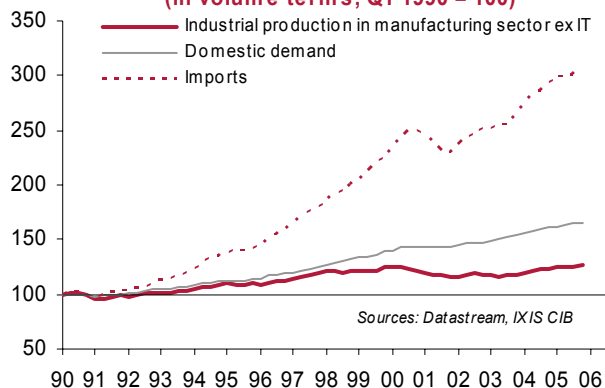
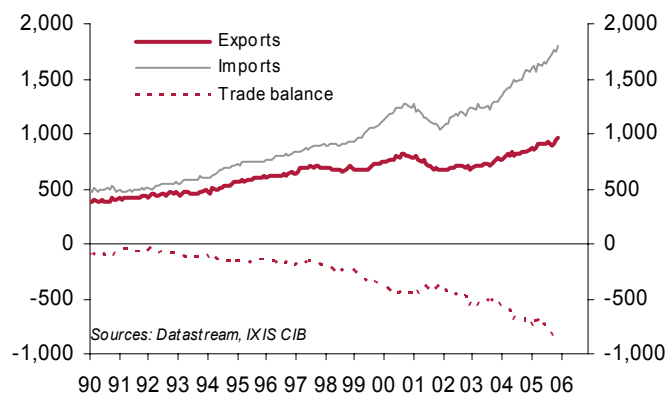


Chart 38B
United States: Exports, imports and current-account balance (USD bn per year)



If industrial production is rigid, and if excess capacity in the rest of the world is very abundant due to the high level of investment (Charts 39A to 39E), an *ex ante* increase in demand (investment or consumption) in the rest of the world would not trigger a rise in production and exports in the United States, or a decline in imports of the United States or, therefore, a reduction in the external deficit. Let us take for example the case of a rise in consumption of China (*ex ante* decline in the Chinese savings rate); it would be satisfied by an increase in output in China and other Asian countries, but not in the United States, and this would increase *ex post* the level of Chinese savings without lowering China's external surplus.

Chart 39A
United States: National savings rate, investment rate and current-account balance (as % of GDP)

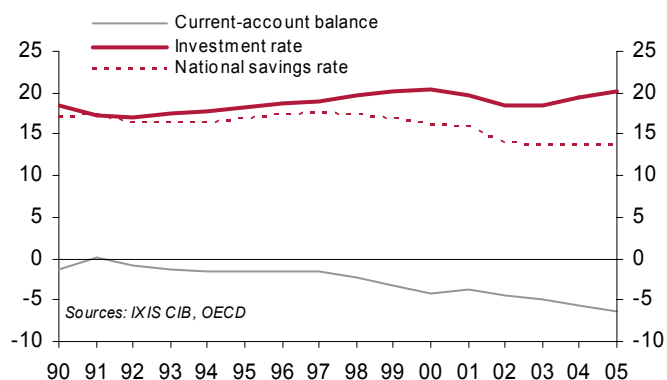


Chart 39B
Euro zone: National savings rate, investment rate and current-account balance (as % of GDP)

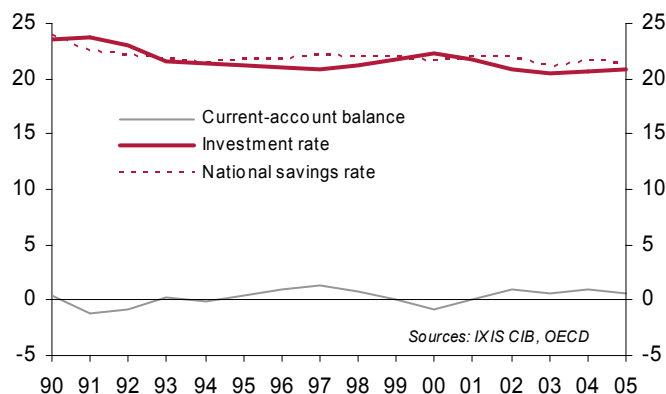


Chart 39C
Japan: National savings rate, investment rate and current-account balance (as % of GDP)

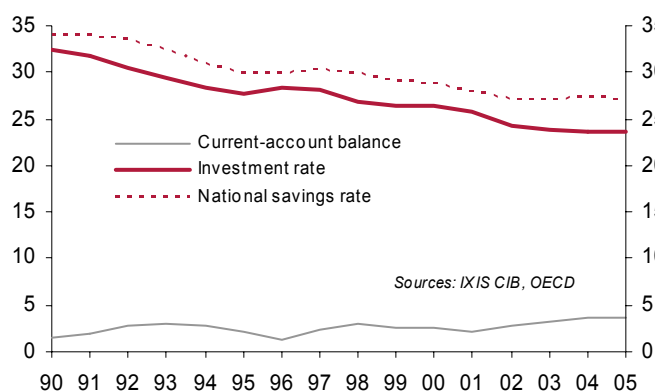


Chart 39D
China: National savings rate, investment rate and current-account balance (as % of GDP)

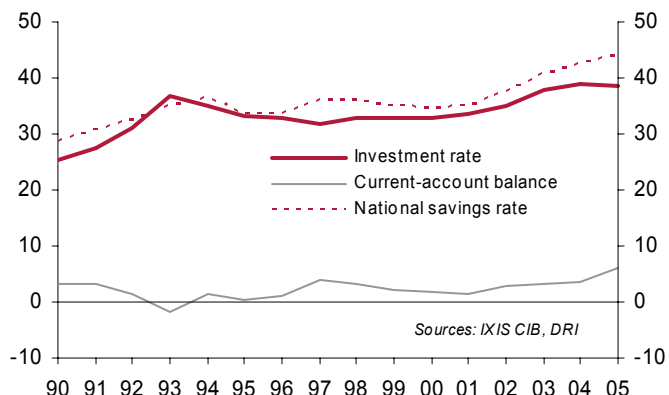
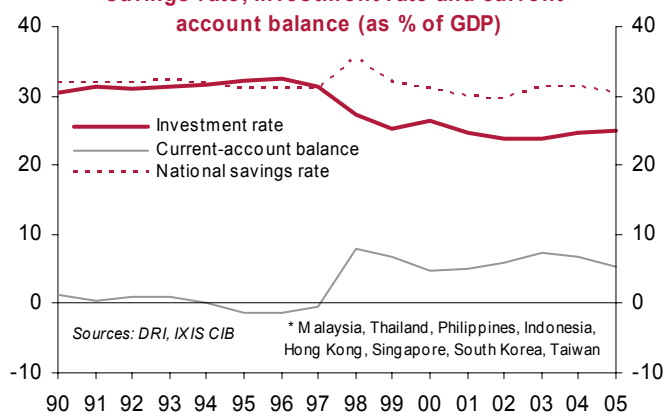


Chart 39E
Other Asian emerging countries*: National savings rate, investment rate and current-account balance (as % of GDP)



Argument no. 5: The deficit in goods in the United States will be offset by the surplus in services

The United States spends substantially on R&D, and its corporate innovation drive is very efficient (Tables 4A, 4B and 4C).

Table 4A
Research & Development in companies (as % of GDP)

	Germany	France	Spain	Italy	United States	Japan
1997	1.54	1.39	0.40	0.52	1.91	2.05
1998	1.57	1.35	0.47	0.52	1.95	2.1
1999	1.70	1.38	0.46	0.51	1.98	2.1
2000	1.75	1.36	0.50	0.53	2.04	2.12
2001	1.75	1.41	0.50	0.55	2	2.26
2002	1.75	1.43	0.56	0.54	1.87	2.32
2003	1.73	1.36	0.58	0.55	1.79	2.38

Sources: OECD, Eurostat

Table 4B
Number of corporate researchers (per 10,000 jobs)

	Germany	France	Spain	Italy	United States	Japan
1997	-	-	-	-	-	-
1998	35.50	31.07	10.07	13.50	74.13	65.89
1999	39.44	32.04	10.42	12.78	76.08	67.12
2000	39.52	33.55	13.58	12.50	75.78	65.37
2001	40.55	36.12	11.89	12.46	72.00	67.17
2002	40.17	38.64	15.15	11.32	71.00	68.11

Sources: Science, technology and industry: OECD Outlook 2002-2004

Table 4C
Number of triadic patents (per million inhabitants)

	Germany	France	Spain	Italy	United States	Japan
1997	68.42	36.66	2.72	12.54	55.74	88.44
1998	74.90	34.47	2.89	13.54	54.57	88.33
1999	73.00	36.27	2.83	13.68	54.89	91.98
2000	71.21	36.69	2.88	13.48	53.98	91.92
2001	69.42	37.08	2.78	13.71	52.62	92.25

Sources: Table No. 65 – Main Science and Technology Indicators 2004, OECD

One could therefore expect the external deficit in goods (**Chart 18B**) to be offset by the surplus in services, i.e. financial services, engineering, fees on the patents, etc. But this is not at all the case: **the surplus in services of the United States versus the rest of the world is extremely small in comparison with the deficit in goods (Chart 40).**

Argument no. 6: US households have no shortfall in savings but carry out an efficient inter-temporal smoothing of their consumption

As is well known, the US household savings rate has steadily fallen since the early 1990s, while the US household debt ratio has steadily risen (**Chart 41**).

It is also well known that the changeover to household borrowing requirements in the United States explains the trend growth in the external deficit (**Chart 42**).

Chart 40
United States: Trade balance on services
(as % of GDP)

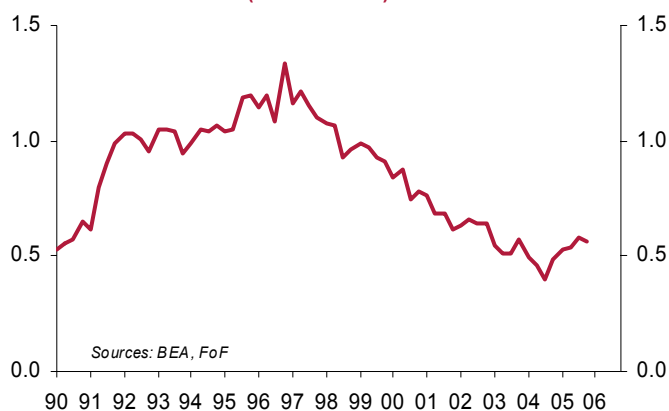


Chart 41
United States: Household debt load and savings rate

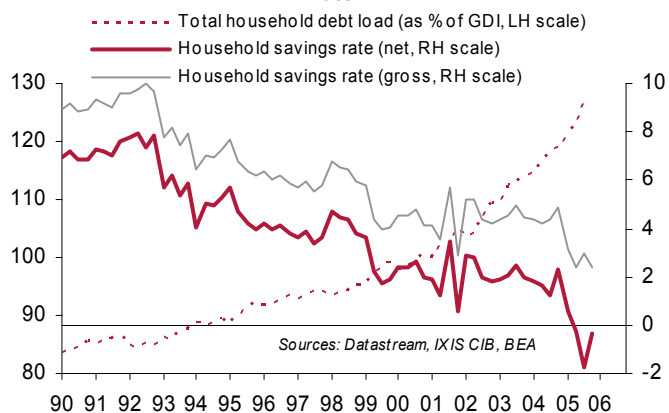
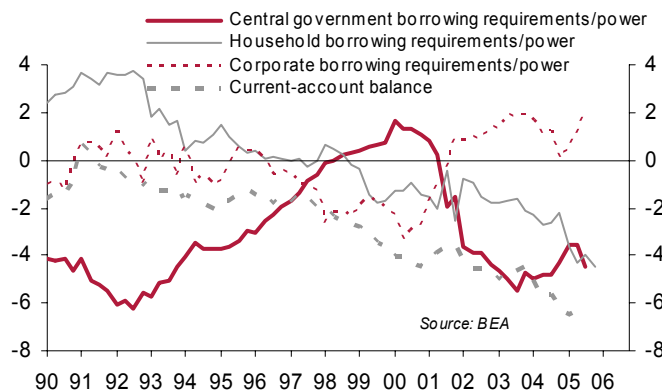


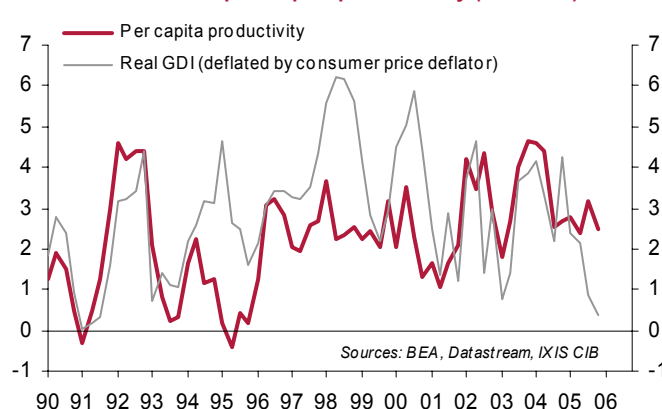
Chart 42
United States: Current-account balance and borrowing power (as % of GDP)



The last argument drawn upon to justify the “inoffensive” nature of the external deficit of the United States is as follows: the rise in US household indebtedness (the fall in the US household savings rate) is not abnormal: it stems from the increase in potential growth in the United States and, therefore, in expected future household income and household wealth. They accordingly consume now their higher future income (their wealth), i.e. there is no anomaly in trends in savings, but only **inter-temporal smoothing of consumption**.

There was indeed a rise in productivity gains and growth in real household disposable income (**Chart 43**), until the end of 2004, but this was no longer the case in 2005.

Chart 43
United States: Real household disposable income and per capita productivity (Y/Y as %)



But this rise cannot explain the fall in the savings rate:

- the higher productivity gains should have lead to **a rise in real interest rates**;
- declines in the savings rate appear above all:
 - **at the time of bubbles in asset prices** (equities in the late 1990s and property today, **Chart 44**);
 - when a very expansionary monetary policy in the United States and, subsequently, the abundance of global liquidity **drove long-term interest rates downwards** and drove mortgage credit upwards (**Chart 45**).

Chart 44

United States: Real estate prices, savings rate and stock market price

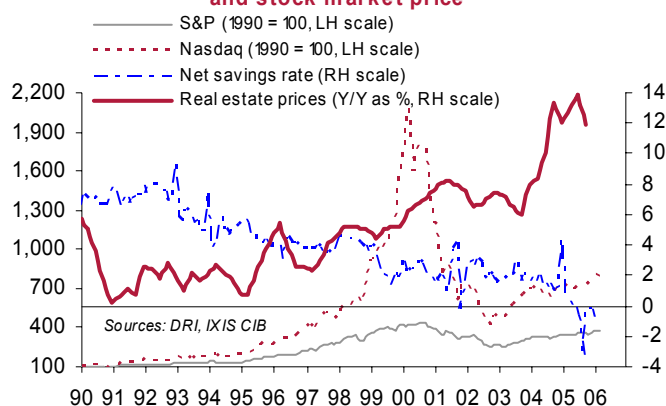
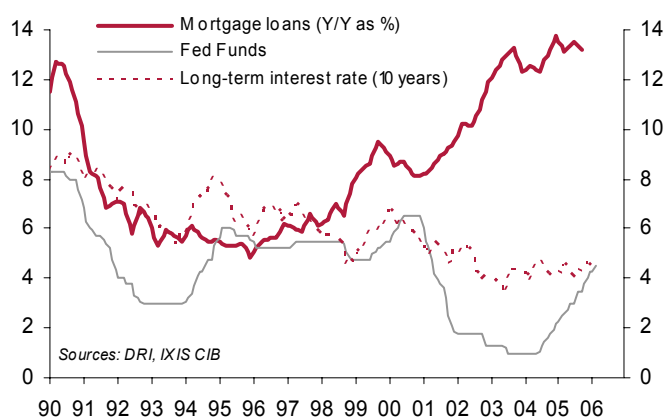


Chart 45

United States: Mortgage loans and interest rate



Therefore “**abnormal enrichment**” (due to excessive rises in asset prices) **rather than “normal enrichment**” (due to more robust growth) **explains the fall in the US household savings rate.**

All in all, none of the six approaches proposed to justify the external deficit of the United States — attractiveness of the United States for private investors, inevitable endless accumulation of official reserves by central banks, role of financial intermediary played by the United States, excess savings in the rest of the world, capacity of the United States to have surpluses in services and inter-temporal smoothing of consumption — **in our opinion is convincing.**

5 – Is there really a problem? The case of liquidity growth

Let us rapidly review again the motives and the effects of the very expansionary global monetary policy. Its purpose is straightforward: when demand could weaken owing to the losses in wealth due to different crises: i.e. emerging-country crises, LTCM, bursting of the dot.com bubble, crisis in governance (Enron), etc., it has to be sustained by:

- **the rate cuts**, due to expansionary monetary policies and currency interventions, **which stimulate credit** (extended to households, **Chart 46A**) and enable **demand to be maintained (Charts 46B and 46C) by increasing indebtedness** — as has occurred in the euro zone apart from Germany — **despite the losses in income (Chart 46D);**

Chart 46A
Loans to households (Y/Y as %)

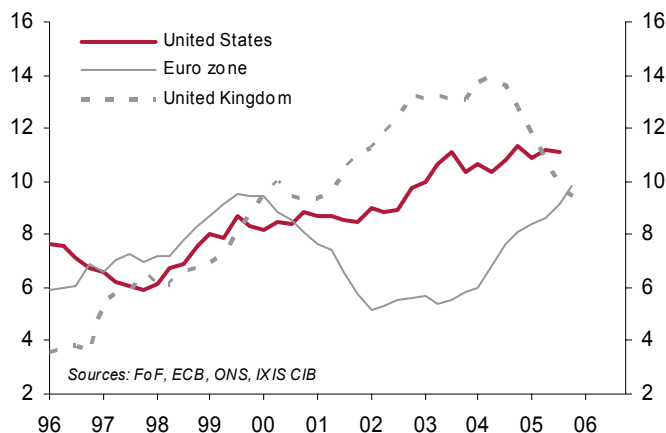


Chart 46B
Household consumption
(in volume terms, Y/Y as %)

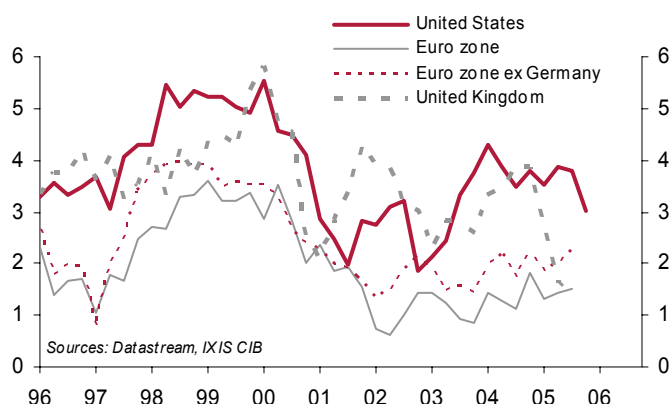


Chart 46C
Household housing investment
(in volume terms, Y/Y as %)

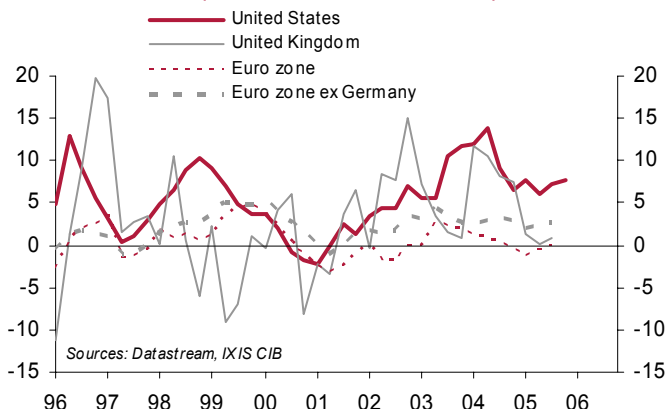
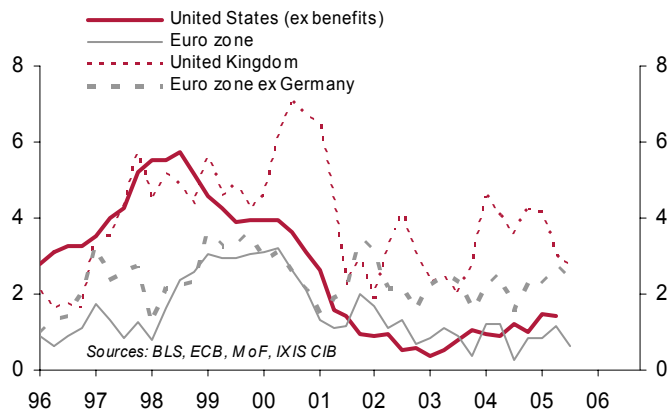


Chart 46D
Real payroll (consumer price deflator, Y/Y as %)

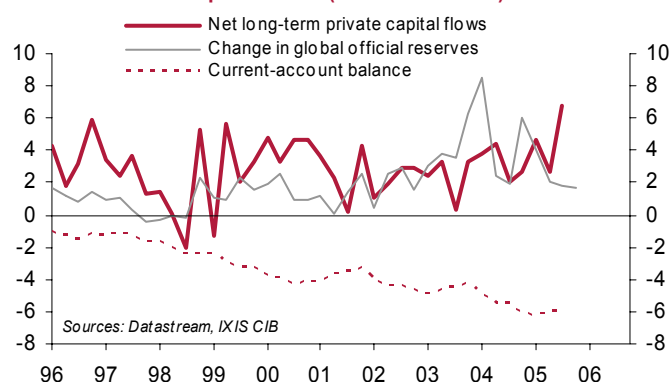


- the possibility offered by the accumulation of official reserves to ensure there is no rise in the US household savings rate (Chart 47), and, in fact on the contrary, as this would not be possible if central banks did not finance a large part of the external deficit of the United States (Chart 48), because then there would be a slide in the dollar and an induced increase in Americans' savings;

Chart 47
United States: Net household savings rate



Chart 48
United States: Current-account balance, global official reserves and net long-term private capital flows (as % of US GDP)



- the offsetting of capital losses on equities and corporate bonds by capital gains on residential property, due to the rise in house price (Chart 49) which prevent the household savings rate from rising (Chart 50);

Chart 49
Real estate prices (Y/Y as %)

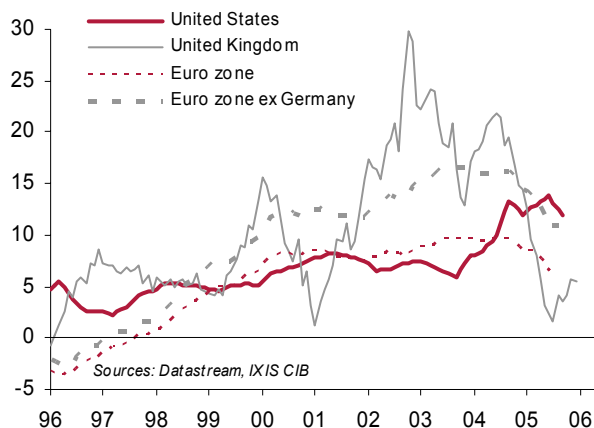
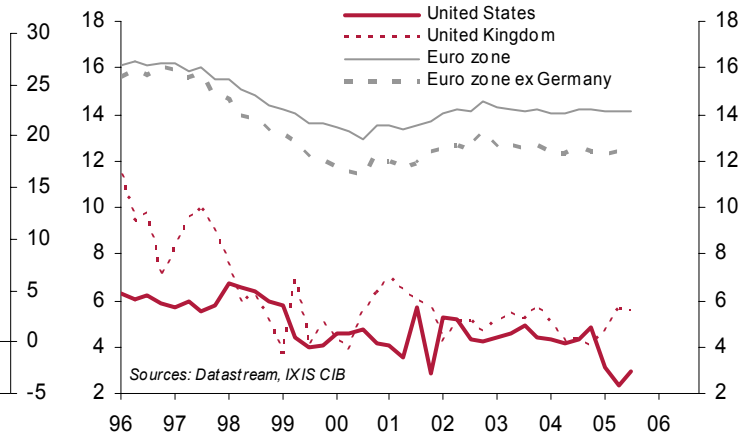


Chart 50
Gross household savings rate



Let us summarise: the world has periodically experienced financial crises that reduce wealth. To prevent wealth losses from weakening demand and activity, economic policies become very expansionary in order to sustain demand and offset the effect of wealth losses.

We are thus, after the crises, and because of the efforts made to prevent their consequences, in a situation of low risk-free interest rates and abundant liquidity (Charts 51A, 51B and 51C), and significantly higher asset prices as has been seen above.

Chart 51A
Monetary base-to-nominal global GDP (as %)

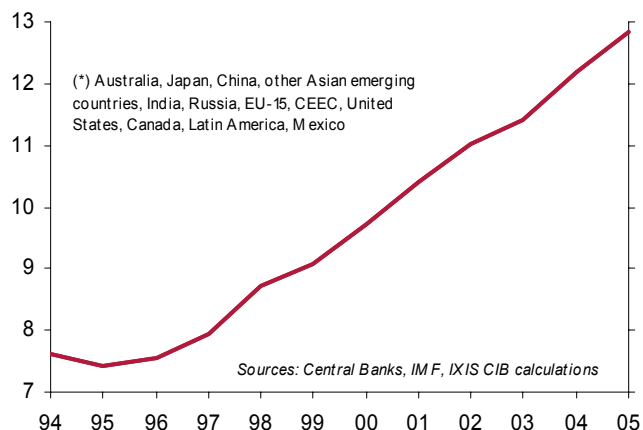


Chart 51B
World: Short-term interest rate

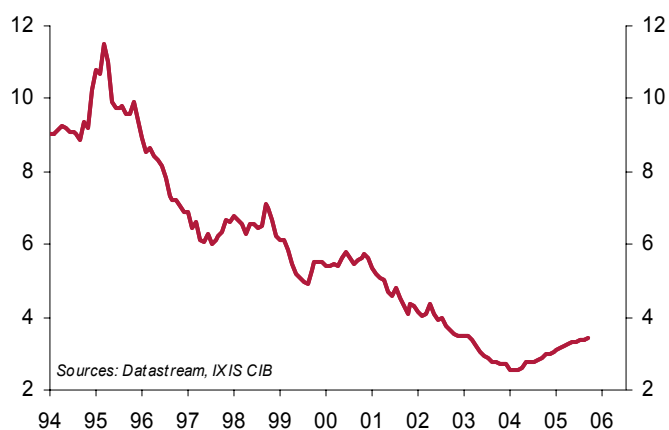
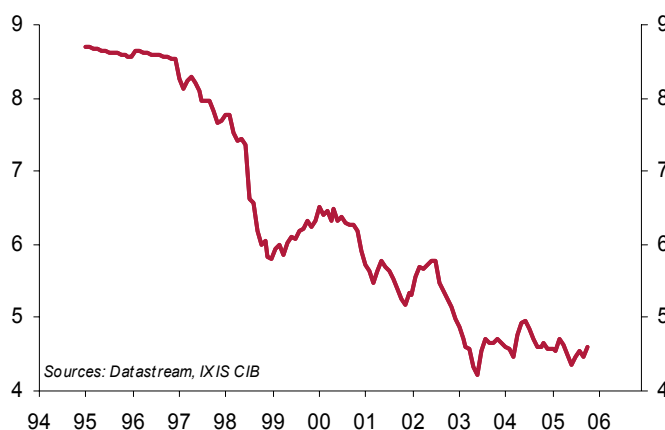


Chart 51C
World: Long-term interest rate



Why is this development dangerous?

- in the near term, the squeezing of risk premia leads investors to increase their risk-taking by increasing the weight of riskier and less liquid assets in their portfolios.

We can see, for example, a **pronounced rise in outstandings** of hedge funds, private equity and MBS (**Tables 5A, 5B, 5C and 5D**).

Table 5A
Outstandings of hedge funds (USD bn) United States
+ Rest of the world

years	Total	United States
1998	320	-
1999	480	255
2000	520	280
2001	600	315
2002	650	340
2003	820	420
2004	980	-
2005	> USD 1,000 bn	-

Sources: Van Hedge Advisors International

Table 5B
Investments in Private Equity (USD bn)

	United States*	Europe
1998	102.8	22.7
1999	125.9	27.1
2000	182.8	44.4
2001	84.8	35.8
2002	29.9	26.0
2003	40.9	30.6
2004	68.8	34.2
2005	79.3	-

Sources: EVCA, NVCA

Table 5C
Outstandings of MBS
In the United States (USD bn)

1996	1,711.2
1997	1,825.8
1998	2,018.4
1999	2,292.0
2000	2,491.7
2001	2,830.2
2002	3,158.3
2003	3,493.0
2004	3,546.2
2005Q3	3,619.9

Sources: GNMA, FNMA, FHLMC

Table 5D
Breakdown of outstanding ABS – United States

All amounts in USD billion	1998	1999	2000	2001	2002	2003	2004	2005:Q3
Total outstandings	731.5	900.8	1,071.8	1,281.2	1,543.2	1,693.7	1,827.8	1,922.6
Automobile	86.9	114.1	133.1	187.9	221.7	234.5	232.1	226.0
Total as %	11.90%	12.70%	12.40%	14.70%	14.40%	13.80%	12.70%	11.8%
Credit cards	236.7	257.9	306.3	361.9	397.9	401.9	390.7	360.8
Total as %	32.40%	28.60%	28.60%	28.20%	25.80%	23.70%	21.40%	18.8%
Housing	124.2	141.9	151.5	185.1	286.5	346	454	513.6
Total as %	17.00%	15.80%	14.10%	14.50%	18.60%	20.40%	24.80%	26.7%
Industrial premises	25	33.8	36.9	42.7	44.5	44.3	42.2	34.8
Total as %	3.40%	3.80%	3.40%	3.30%	2.90%	2.60%	2.30%	1.8%
Student loans	25	36.4	41.1	60.2	74.4	99.2	115.2	139.0
Total as %	3.40%	4.00%	3.80%	4.70%	4.80%	5.90%	6.30%	7.2%
Equipment rental	41.4	51.4	58.8	70.2	68.3	70.1	70.7	64.4
Total as %	5.70%	5.70%	5.50%	5.50%	4.40%	4.10%	3.90%	3.4%
CBO/CDO	47.6	84.6	124.5	167.1	234.5	250.9	264.9	290.4
Total as %	6.50%	9.40%	11.60%	13.00%	15.20%	14.80%	14.50%	15.1%
Other	144.7	180.7	219.6	206.1	215.4	246.8	258	293.6
Total as %	19.80%	20.10%	20.50%	16.10%	14.00%	14.60%	14.10%	15.3%

Source: The Bond Market Association

- in the long term, the danger results from the fact that the period of low interest rates and high asset prices will have been long: 1998-2006, especially 2003-2006 and following years.

This long period will have left enough time for:

- **households** to increase substantially their debt ratio (**Chart 52**),
- **companies** to begin running up debt again after the period of degearing that followed the 2000-2001 recession (**Chart 53**),

Chart 52
Household debt load (as % of GDI)

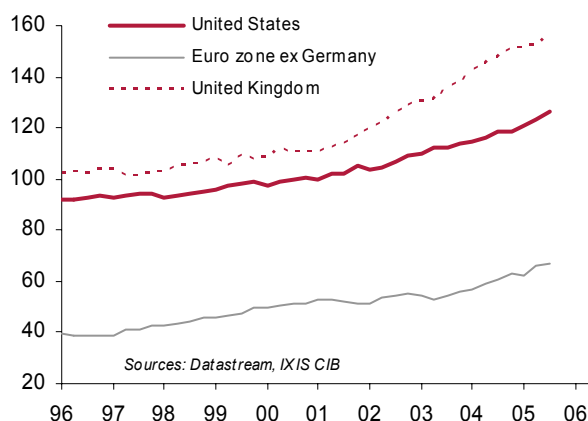
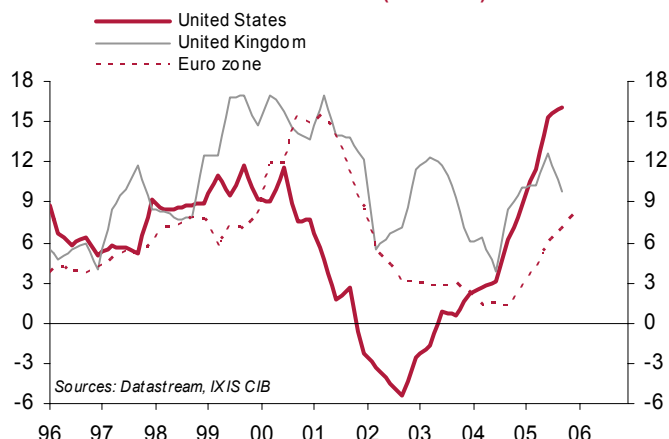


Chart 53
Business loans (Y/Y as %)



- **investors to accumulate assets purchased at very high prices.** This holds notably for the **accumulation of bonds** by institutional investors (**Charts 54A, 54B and 54C**) or in some countries (like Japan) by banks (**Chart 55**).

Chart 54A
Net purchases of (government and corporate) bonds by institutional investors (insurance companies and pension funds) (as % of GDP)

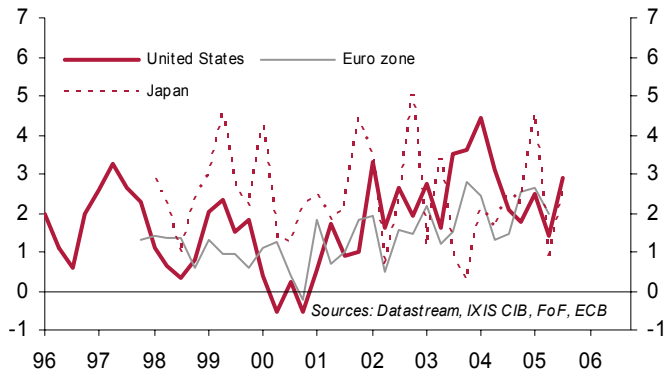


Chart 54B
Bonds held by insurance companies and pension funds (outstanding, as % of GDP)

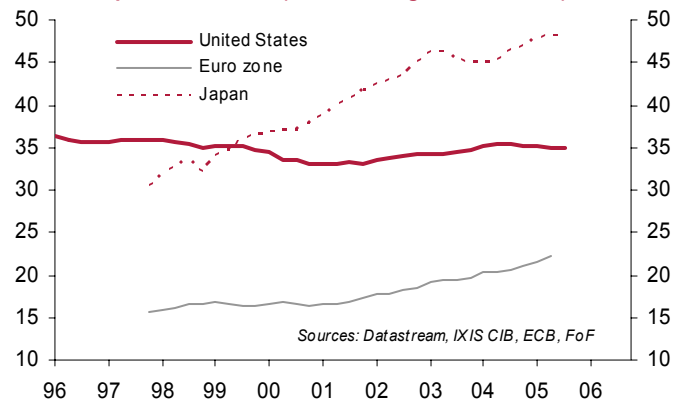


Chart 54C
France: Bonds held by insurance companies and pension funds (outstanding, as % of GDP)

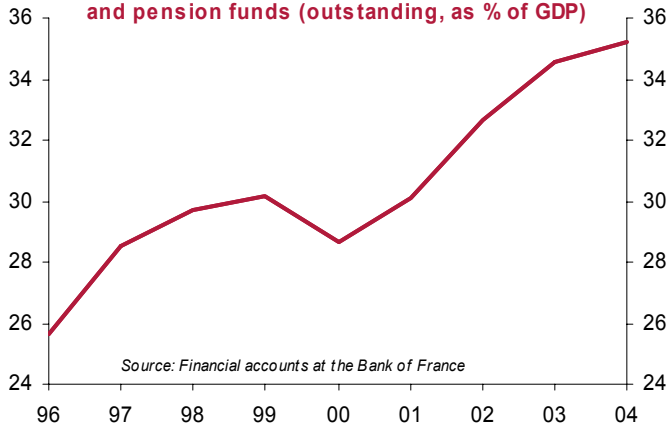
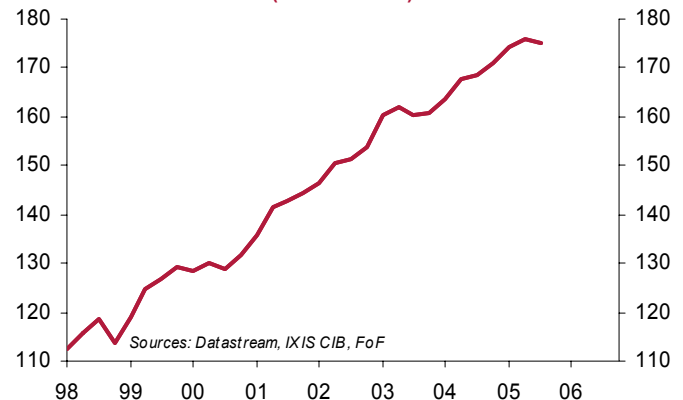


Chart 55
Japan: Stock of bonds held by banks (as % of GDP)



When global liquidity will become less abundant — when, for example, China lets its currency float against the dollar and stop accumulating official reserves — there will be a situation of excess indebtedness and all the more serious asset losses as indebtedness will have been able to grow for a long time due to high asset prices, and investors will have had enough time to acquire large portfolios of overvalued assets.

Table 6 below shows our estimate of **the effect on the various markets of a return to a neutral global monetary policy**, defined as implying growth in the global monetary base similar to that in global GDP, or the end of purchases of US bonds by non-residents.

Table 6
Effects of the changeover to a neutral monetary policy

ASSETS	Effect of a 1% of GDP rise in purchases of bonds	Current level	Level if interventions end (purchases of bonds by non-residents = 0)
US10-year interest rate	18-bp decline	4.6	5.9 (+ 130 bp)
German 10-year interest rate	28-bp decline (Hyp.: elasticity to US 10Y rate = 0.8) 19-bp decline (Hyp.: elasticity to US 10Y rate = 0.3)	3.5	5.5 (+200 bp)
BBB/ US gov credit spread	4-bp decline	129	157 (+28 bp)
BBB/ euro-zone gov credit spread	4.4-bp decline	84	114 (+30 bp)
US swap spread	8.3-bp decline	54	74 (+20 bp)
Euro-zone swap spread	5.1-bp decline	12	24 (+12 bp)
US and euro-zone stock markets			10% decline

Sources: IXIS CIB, Datastream, Bloomberg

6 – Is there really a problem? The case of fiscal deficits

6 – 1 Back to budgetary insolvency

We do not intend to look at all the countries concerned, and accordingly we restrict our scope to illustrate our argument to Germany, France, Italy and Japan. As is well known, there is **inter-temporal budgetary solvency** when the fiscal deficit is lower than the product of the public debt by the nominal growth rate. **Recently, inter-temporal budgetary solvency is no longer ensured in Germany, France, Italy (since 2005), the Netherlands and Japan, (Charts 56A to 56E).** When the index of solvency of these Charts is positive, budgetary solvency is ensured.

Chart 56A

Germany: Fiscal deficit and public debt

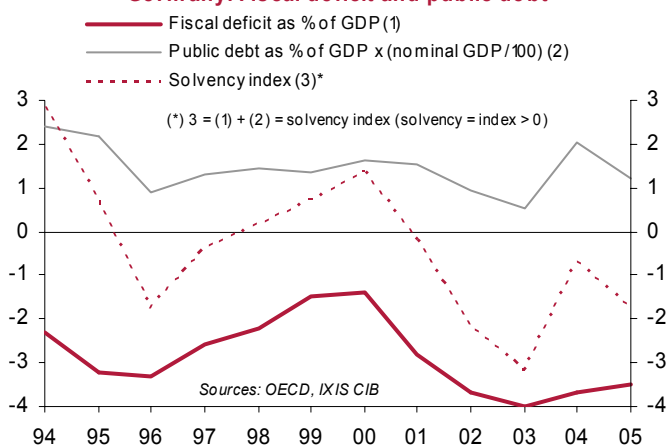


Chart 56B

France: Fiscal deficit and public debt

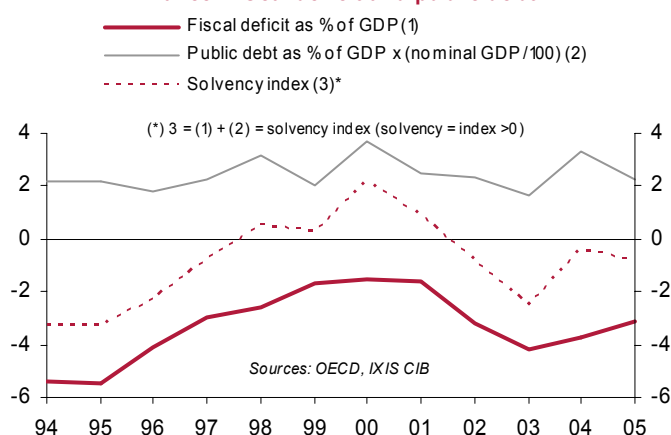


Chart 56C

Italy: Fiscal deficit and public debt

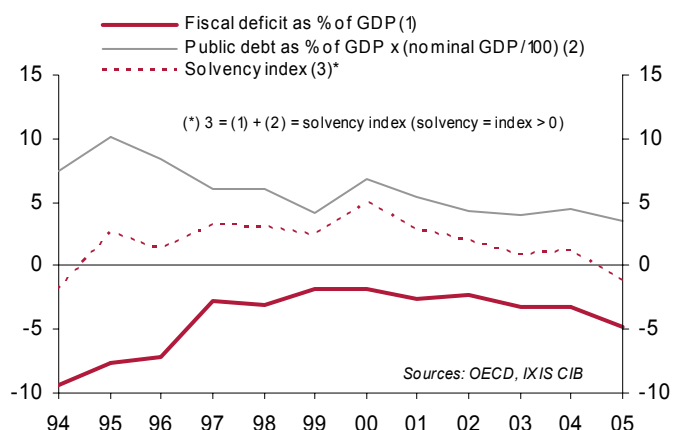


Chart 56D

Netherlands: Fiscal deficit and public debt

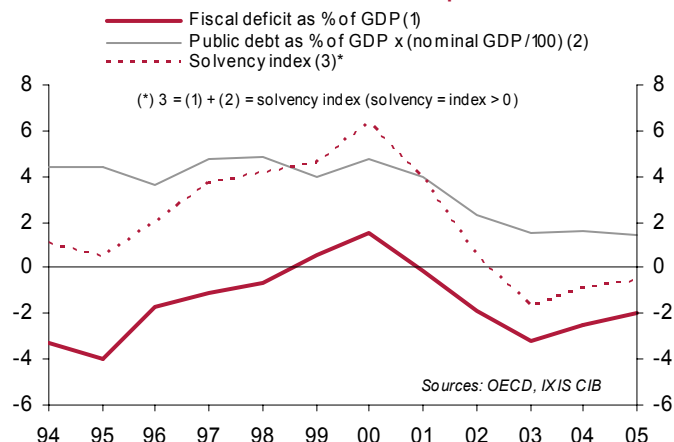
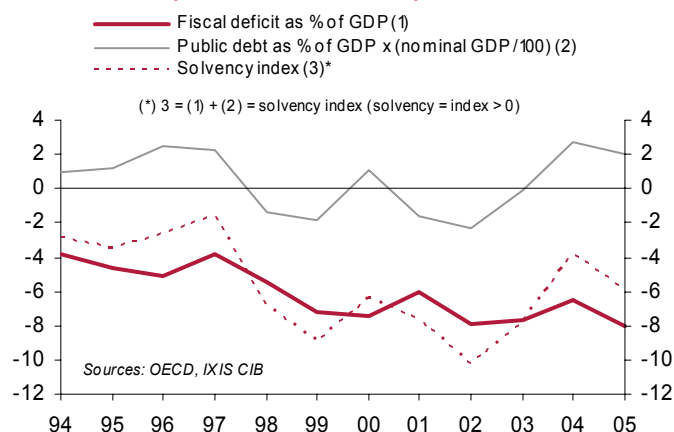


Chart 56E

Japan: Fiscal deficit and public debt



In the countries where inter-temporal budgetary solvency is no longer ensured, there is a rise in the **public debt ratio (Charts 57A and 57B)**, except if this rise is masked in the near term, for example, by privatisations as in the case of Italy.

Chart 57A

Public debt

(as defined by Maastricht, as % of GDP)

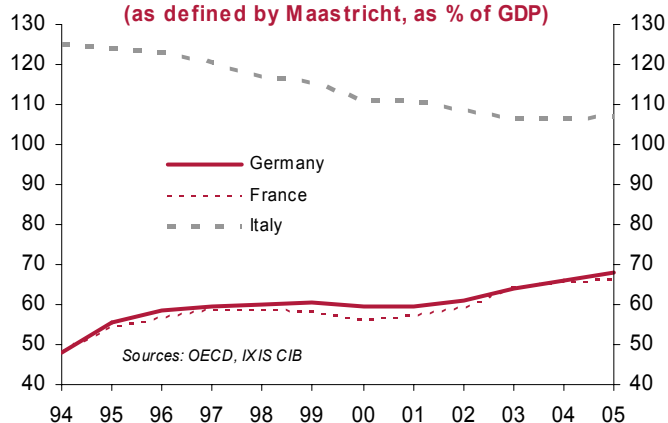
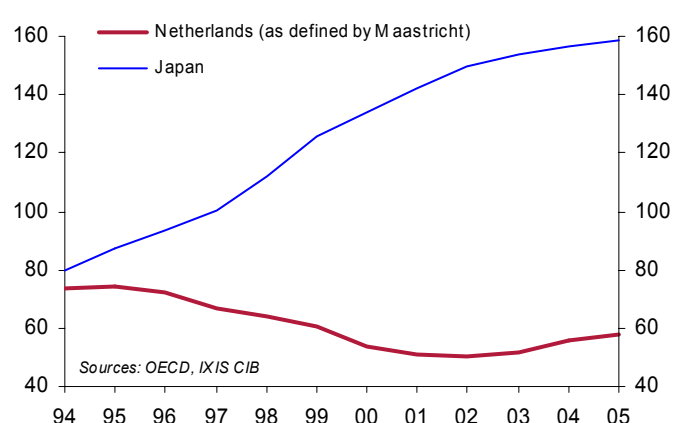


Chart 57B

Public debt (as % of GDP)



It is well known, moreover, that one has to add to **this explicit (observed) public debt**, the implicit additional debt stemming from **deficits of state-run welfare systems** (Tables 7 and 8), due to **population ageing** (Charts 58A and 58B).

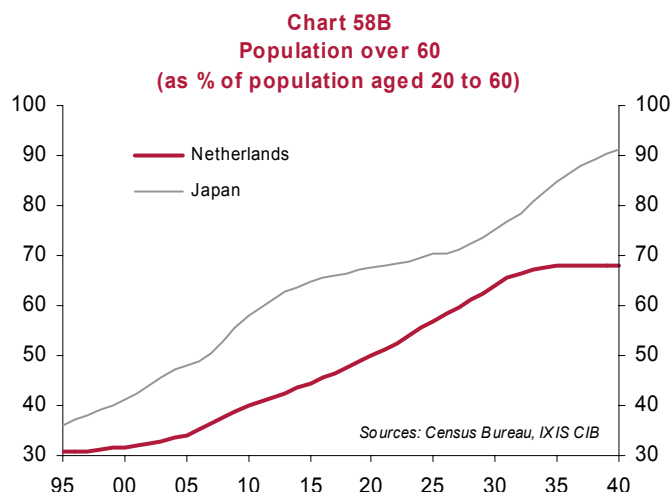
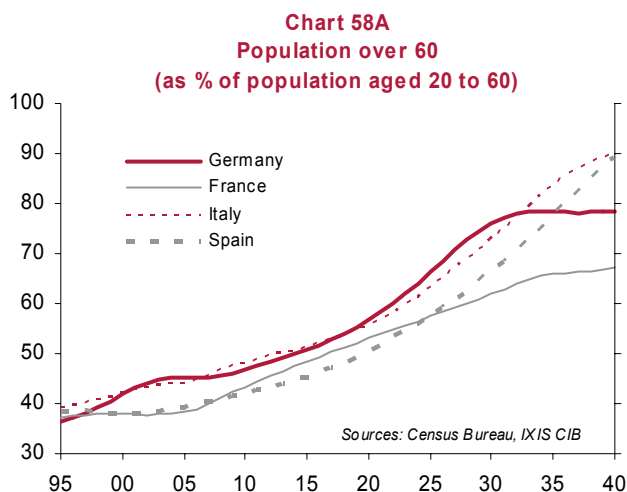


Table 7
Government expenditure on pensions (as % of GDP)

	2000	2005	2010	2020	2030	2040	2050
Japan	7.9	8.0	8.1	8.2	8.3	8.4	8.5
Germany	11.8	11.5	11.2	12.6	15.5	16.6	16.9
France	12.1	12.2	13.1	15.0	16.0	15.8	15.6
Italy	14.2	14.1	13.9	14.8	15.7	15.7	14.1
Netherlands	7.9	8.3	9.1	11.1	13.1	14.1	13.6

Table 8
Government expenditure on health (as % of GDP)

	2000	2050
Japan	5.8	8.2
Germany	10.3	13.6
France	9.8	13.0
Italy	7.5	10.7
Netherlands	10.6	14.0

Sources: OFCE-DREES, Belgian Federal Planning Bureau, Eurostat

Lastly, it is also well established that expenditure on R&D, higher education and boosting innovation will have to be increased in many countries, and this may lead to a worsening in fiscal deficits in the future if nothing else is done.

6 – 2 EMU countries are no longer sovereign issuers

Theoretically, a sovereign issuer can never default because:

- it can use **inflationary taxation** to reduce the public debt ratio;
- it can always **raise taxes** to reduce fiscal deficits.

For a range of “acceptable” levels of the public debt ratio, the free choice of inflation and the tax burden normally guarantee the lack of default risk for a sovereign borrower.

If we use the above theoretical elements, we can clearly see that **governments in the euro zone no longer display the characteristics of sovereign issuers.**

They no longer control the creation of money in their countries, and the ECB, which does, has a price stability target. This implies, in contrast with what occurred from 1973 to 1979 in the United States or France, for example (Charts 59A and 59B), that **inflation can no longer trigger cuts in real interest rates** that reduce the public debt ratio. On the contrary, if inflation were to appear, the ECB would react by increasing real interest rates, as the Bundesbank systematically used to do in the past (Chart 60), or the Federal Reserve and the Bank of France did from the early 1980s.

Chart 59A
United States: Inflation and real interest rates

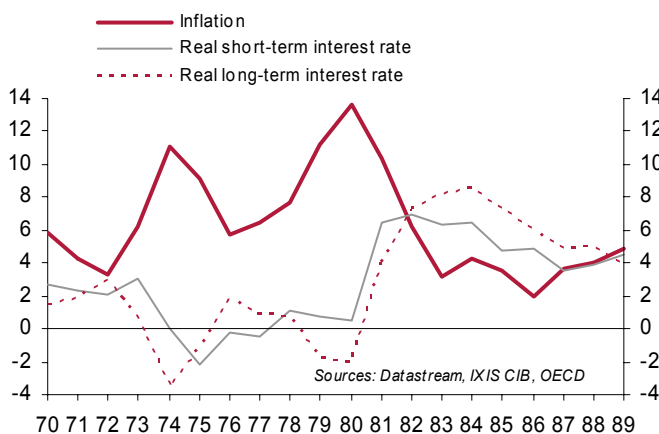
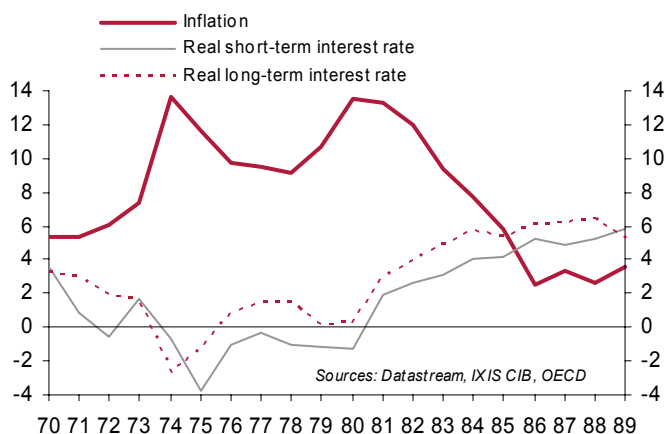


Chart 59B
France: Inflation and real interest rates



Tax competition in Europe means EMU countries can no longer use an increase in the tax burden to reduce fiscal deficits. Central European countries, notably, practise tax competition with regard to the taxation of company earnings (Table 9) or high incomes (Table 10). This has already forced EMU countries to lower their tax burden (Chart 61).

Chart 60
Germany: Inflation and real interest rates

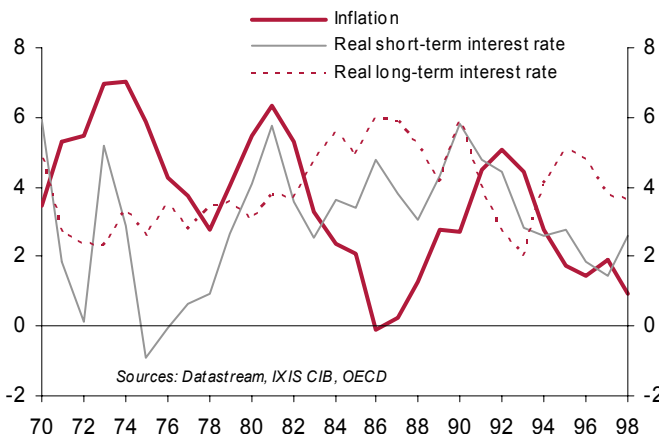


Chart 61
Euro zone: Fiscal deficit, government expenditure and tax burden (as % of GDP)

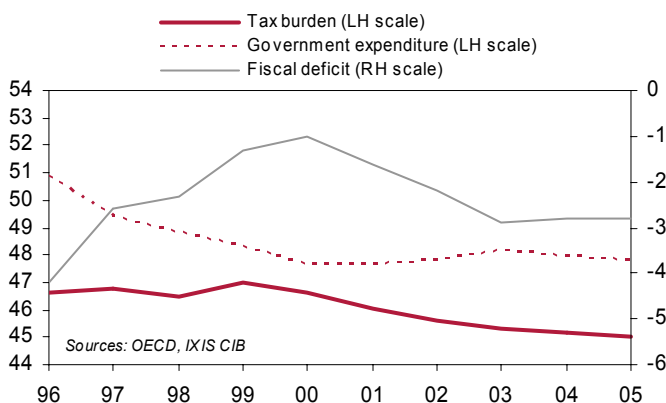


Table 9
Corporate tax rate (as %, in 2004)

Germany	38.8	Bulgaria	15 + 10 (**)
Austria	34	Cyprus	15
Belgium	34	Czech Republic	28
Denmark	30	Estonia	0
Spain	35	Hungary	18
Finland	29	Latvia	15
France	35.4	Lithuania	15
Greece	35	Malta	35
Italy	37.3	Poland	19
Ireland	12.5	Romania	25 (*)
Luxembourg	30.4	Slovakia	19
Netherlands	34.5	Slovenia	25
Portugal	27.5	Turkey	30 (*)
United Kingdom	30	EU-25	27.4
Sweden	28	10 new member countries	21.5
EU-15	31.4		

(*) 2002 figure

(**) 20% in 2001 for profits ≥ 50,000, Lev, otherwise 15% and also for banks, financial institutions, 15% in 2002.

Source: European Commission.

Table 10
Top income tax bracket

Germany	45
Austria	50
Belgium	50
Denmark	47.6
Spain	45
Finland	53
France	49.6
Greece	40
Ireland	42
Italy	45
Luxembourg	38
Netherlands	52
Portugal	40
United Kingdom	40
Sweden	56
Latvia	25
Estonia	26
Cyprus	30
Czech Republic	32
Lithuania	33
Malta	35
Slovakia	38
Hungary	40
Poland	40
Slovenia	50
EU-15	46.2
10 New members	34.9
EU-25	41.7

If a euro-zone country cannot use either inflation, or a depreciation in its currency, or an increase in the tax burden to reduce its fiscal deficit and its public debt, it is no longer a sovereign issuer as defined by economic theory.

Nevertheless, the financial markets do not consider that EMU countries are not sovereign issuers.

If the financial markets did consider that EMU countries are not sovereign issuers they would differentiate the long-term interest rates of these countries according to the situation of their public finances, and **this is not the case. Long-term interest rate differentials are very low (Charts 62A and 62B)**, despite the significant differences in terms of budgetary situation (Charts 63A, 63B, 64A and 64B), and this is patent in the case of countries with excessive fiscal deficits, such as France, Italy, Germany and Portugal, or an excessively high public debt, such as Italy and Belgium.

Chart 62A
10-year country spread versus Germany

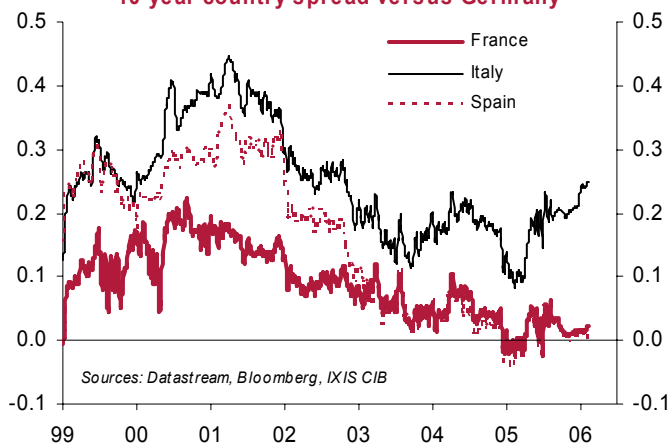


Chart 62B
10-year country spread versus Germany

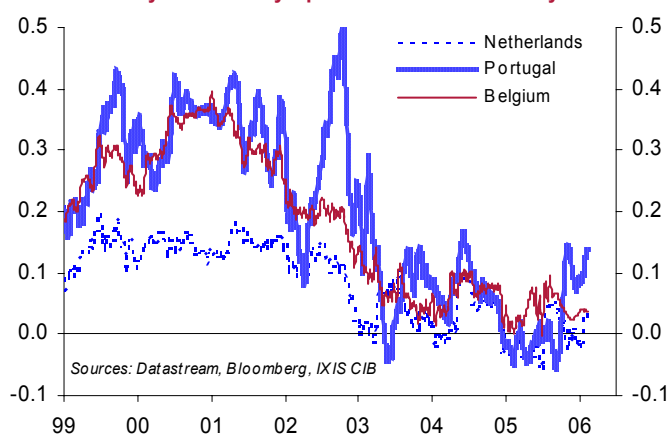


Chart 63A
Fiscal deficit (as % of GDP)

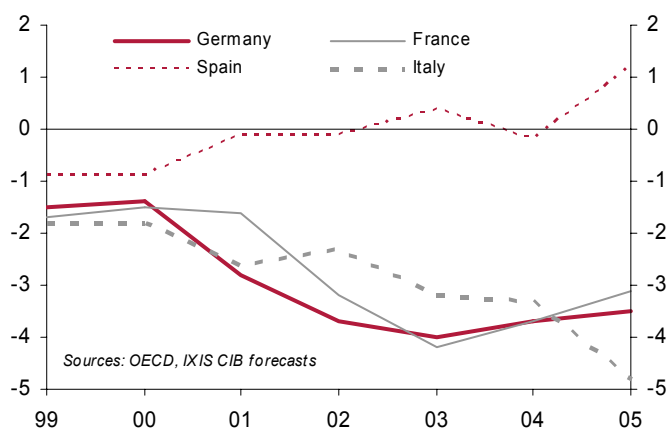


Chart 63B
Fiscal deficit (as % of GDP)

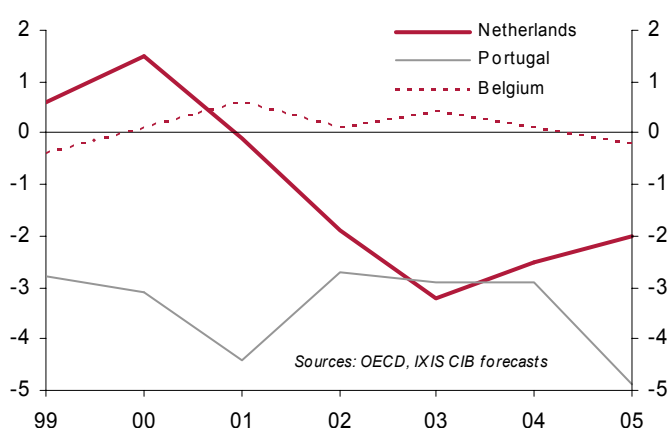


Chart 64A
Public debt (gross, as % of GDP)

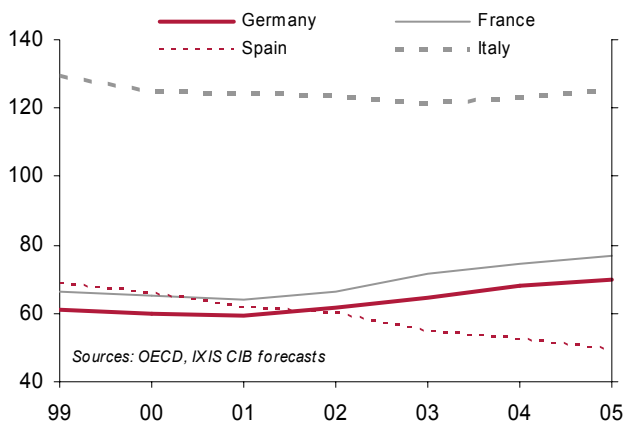
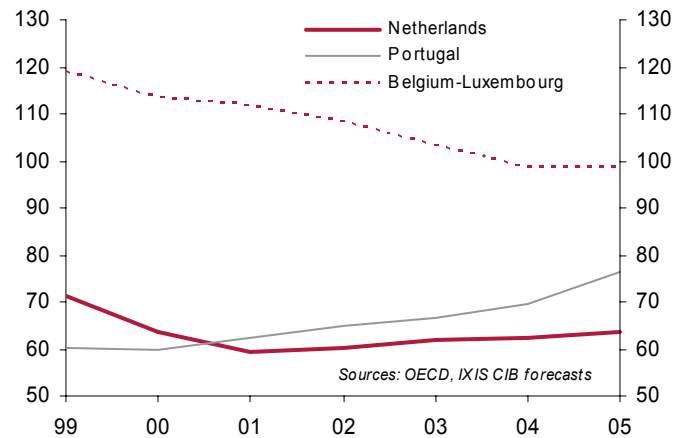
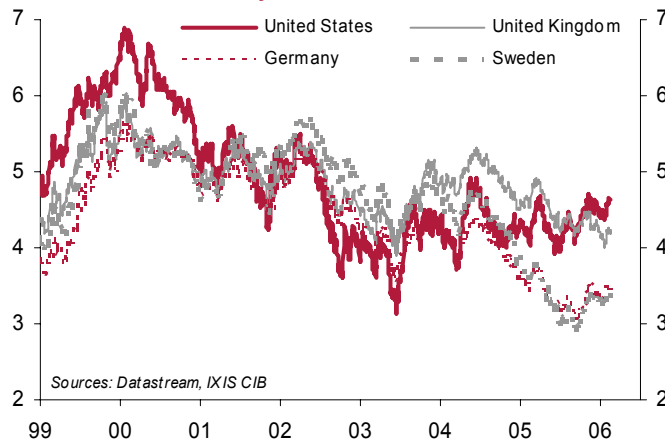


Chart 64B
Public debt (gross, as % of GDP)



If investors were aware of the real status of euro-zone government issuers, they would demand a higher long-term interest rate on the public debts of EMU countries than on those of countries that do have the status of sovereign issuer, e.g. the United States, United Kingdom and Sweden — and this is not the case (Chart 65).

Chart 65
10-year interest rate



In sum, one has to take into account the fact that the financial markets apparently do not realise that EMU countries are not “real” sovereign issuers.

What accounts for this situation?

One can naturally first consider the possibility that investors have not yet carried out the foregoing analysis and mistakenly believe that euro-zone countries are sovereign issuers. One could also wonder whether the practice of the euro zone’s *modus operandi* corresponds to economic theory; in particular:

- the ECB may not monetise directly the public debt but monetise it indirectly (in the secondary market), since the monetary base of the euro zone is growing very rapidly, as well as the ECB’s asset portfolio in euros (Charts 66A and 66B). In fact, there might indeed be monetisation in reality, and this would account for the lack of importance of public debts.

Chart 66A
Euro zone: Monetary base and assets ex official reserves of ECBS* (Y/Y as %)

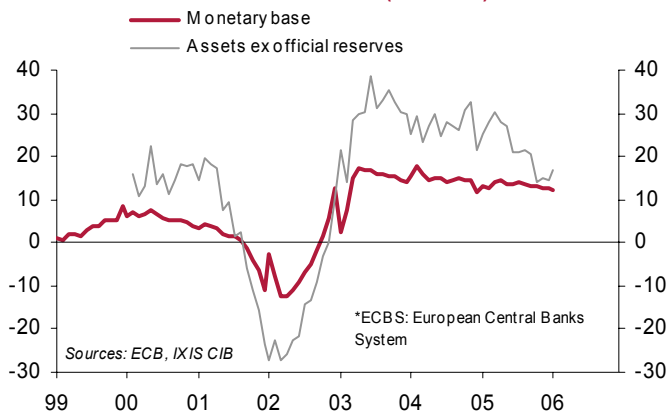
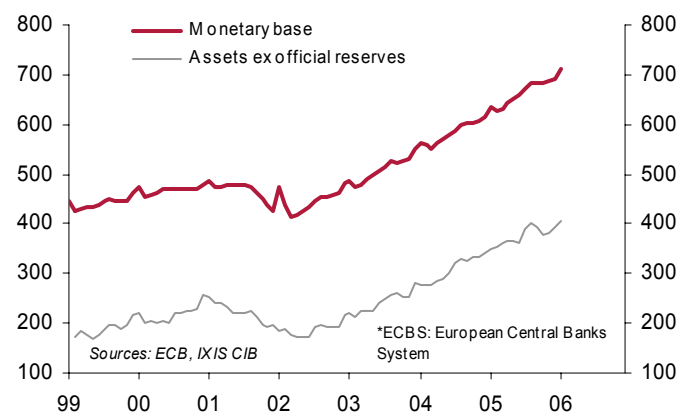


Chart 66B
Euro zone: Monetary base and assets ex official reserves of ECBS* (EUR bn)



- there is theoretically a **no-bailout clause**: EMU countries cannot bail out a country whose public finances would have badly deteriorated and become insolvent. Is the no-bailout clause credible? Even though the euro zone has **net external assets, a noteworthy percentage of bonds denominated in euros are held by non-residents** (Table 11).

Table 11
Holding of the euro zone's bond debt by non-residents (end of year)

	Outstandings in EUR bn		Weight of bonds held by non-residents
	Bonds held by residents	Bonds held by non-residents	
	Euro zone's assets	Euro zone's debt	
1999	938.7	1,149.4	55.0
2000	1,048.5	1,372.7	56.7
2001	1,218.6	1,514.8	55.4
2002	1,206.4	1,628.8	57.4
2003	1,317.1	1,701.3	56.4
2004	1,457.5	1,902.5	56.6

Source: ECB

Letting a country default on its public debt would probably result in a sharp rise in interest rates on all the public debts of the euro zone, and this explains why **there needs to be solidarity between member countries**.

- One can also consider the possibility that, in the event of a major problem in the finances of a member country, EMU countries could implement **a coordinated policy of raising the tax burden and preventing tax competition** within the euro zone, which might be offset with respect to the rest of the world by a depreciation in the euro.

We can clearly see the **nature of the risk: financial markets might drastically distrust countries where budgetary solvency is no longer ensured, especially if they are no longer sovereign issuers**.

The EMU countries, in particular, which would fail to reduce their fiscal deficits would therefore face, in the future, suddenly a rise in their interest rate, when the financial markets realise their true nature of a non-sovereign issuer.

The fact that, currently, market discipline is not playing, does not mean that this will perpetually be the case.

There is therefore a danger that stems from trends in liquidity, imbalances in trade balances, and excessive fiscal deficits. The question is therefore whether there can be an intelligent correction of global imbalances.

Let us look first at the two major imbalances, i.e. deficits and external surpluses/liquidity.

7 – A “soft” or drastic correction of imbalances in savings and excess liquidity?

The most serious global imbalance, as seen above, is the growing external deficit of the United States, which results from the interaction between a shortfall in savings in the United States and excess savings in the rest of the world, and explains the currently rapid growth in global liquidity.

Simultaneously, the global savings rate has risen markedly, resulting in a global situation of Keynesian unemployment. In addition to the imbalance between the United States and the rest of the world, therefore there is also global excess savings.

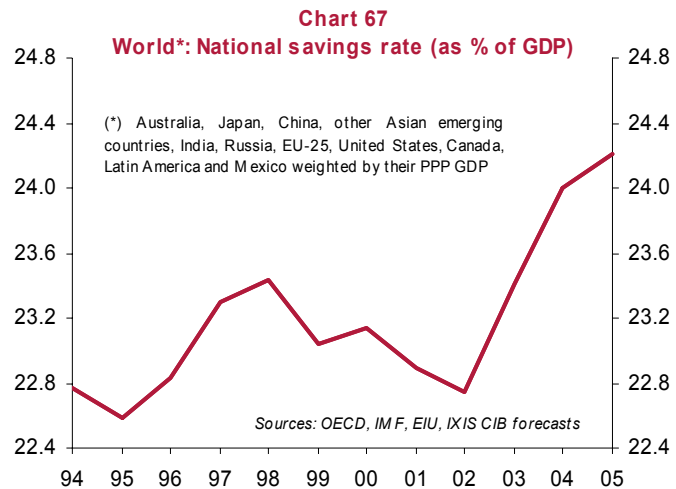
It would be useful to have the US household savings rate rise, in the wake in particular of a changeover to a more restrictive monetary policy in the United States. But if the savings rate and the investment rate of the rest of the world do not vary, this trend would worsen the global glut of savings (global Keynesian unemployment).

Accordingly, if policies leading to additional savings in the United States were implemented, one would also need at the same time the savings rate of the rest of the world to decrease or the investment rate of the rest of the world to increase. But this seems difficult because of:

- the causes of the very high level of savings in China;
- the high level of the investment rate already reached in Asia;
- the impossibility to have economic policies in Europe and Japan that seek to ensure a decline in savings or a rise in investment;
- the present income sharing between countries (producers and consumers of commodities) and economic agents (companies and households) which transfers income to the economic agents that save it and do not spend it.

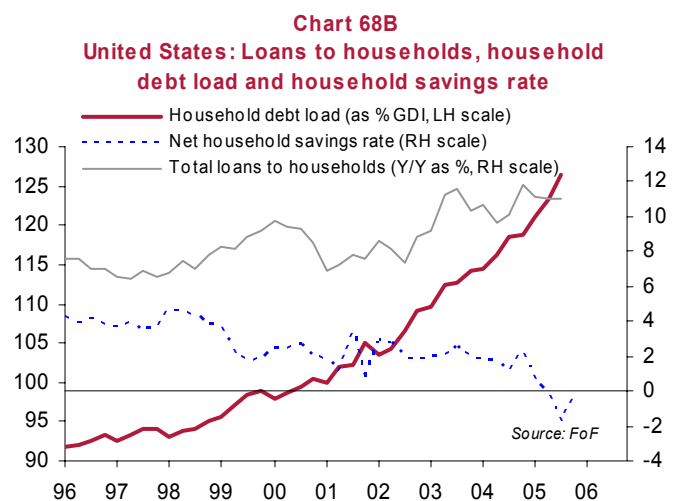
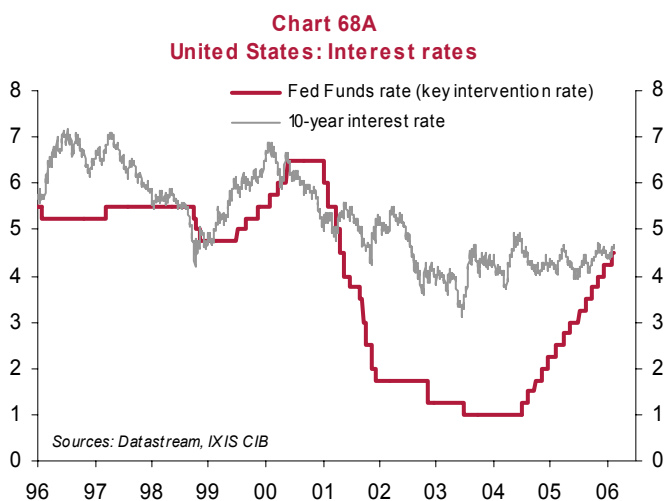
We have described above (see sections 2a and 2b) the global imbalances related to the shortfall in savings (most often household savings) in the United States, due to the excess savings in many emerging countries. It results in growing imbalances in current-account balances and, owing to the accumulation of official reserves, excess global liquidity.

These imbalances combine with a situation of (ex ante) **global excess savings**. The world's savings rate has risen recently (**Chart 67**), and this has led the world into a situation of **Keynesian unemployment equilibrium**, with capacity under-utilisation and a decline in employment rates that accounts for the lack of inflation and the low level of interest rates seen in section 2.



There is therefore both excess global savings and a bad allocation of savings.

It is often suggested, as is reasonable, **that the economic policies of the United States must become gradually more restrictive** to increase the national savings rate in the United States and reduce its external deficit. This includes continuing the reduction in the fiscal deficit begun in 2004 (**Chart 5**), a rise in interest rates up to the point where households stabilise their debt ratio (**Chart 68A** and **68B**) and, therefore, increase their savings rate.



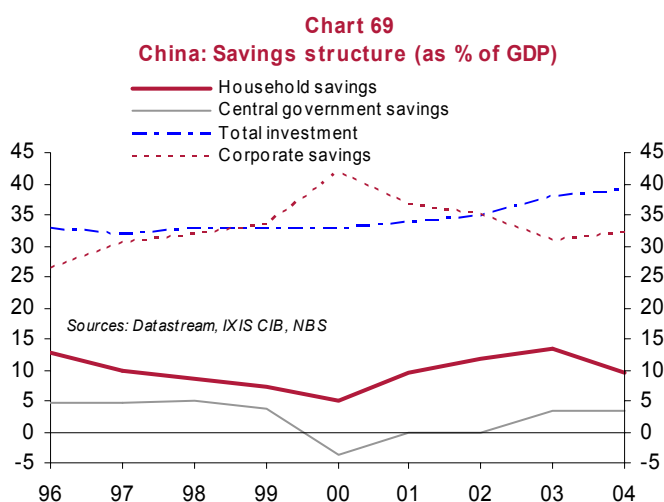
As is well known, this could be difficult to carry out, because of the inertia of long-term interest rates — due to the abundance of liquidity, the interventions of central banks, the switchover by investors into bonds, etc. — which deprives the Federal Reserve from most of the tools it usually draws on to influence the economy.

But our point here is that, **if the Federal Reserve does manage to drive upwards the US household savings rate and the national savings rate in the United States, there will definitely be a reduction in the imbalance in terms of savings between the United States and the rest of the world, but also a worsening in the global situation of excess savings and Keynesian unemployment.**

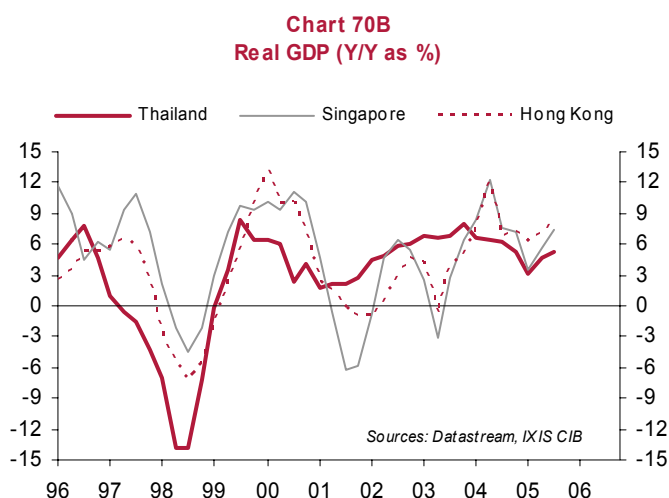
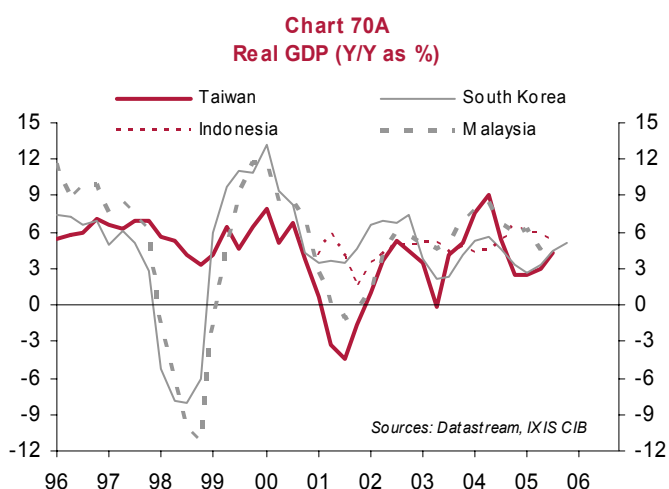
To reduce the imbalance in the savings between the United States and the rest of the world without increasing global excess savings, **if the savings rate does rise in the United States, it would have to decline in the rest of the world, or the investment rate would have to rise in the rest of the world.** But we are going to see that **such a development in the rest of the world, i.e. a decline in savings or a rise in investment, is hardly realistic and would be difficult to organise.**

We will now review the world's various regions.

- (1) **In China:** the investment rate is very (too) high and cannot rise any further; the extremely high level of savings is primarily due to that of corporate savings (**Chart 69**); as is well known, this results from the fact that Chinese banks hardly extend loans to companies (3% of total outstanding credit), and this forces business leaders to have very high savings to finance investments, and this situation will not change rapidly.



- (2) **In the other Asian emerging countries:** investment rates fell markedly after the crisis of 1997–1998, but they were abnormally high before the crisis because of excess credit supply. These countries in fact now enjoy robust growth (**Charts 70A and 70B**) and therefore can hardly be criticised on these grounds.



- (3) In Japan, the investment rate is high, business investment is growing quite rapidly while the household savings rate has significantly decreased because of population ageing (Chart 71).
- (4) In the euro zone: business investment is stagnating but consumer loans are increasing at a rapid pace (Chart 72), and this is bolstering household demand. The euro zone and Japan share the **impossibility**, given their initial situation, of **changing over to fiscal and monetary policies** aimed at lowering saving (Charts 73A and 73B).

Chart 71
Japan: Productive investment and household savings rate

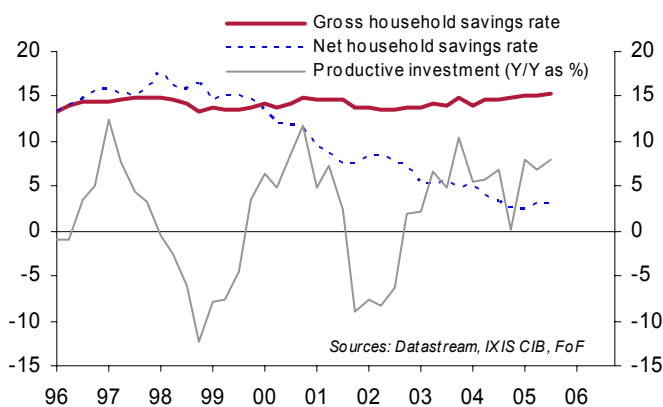


Chart 72
Euro zone: Credit (Y/Y as %)

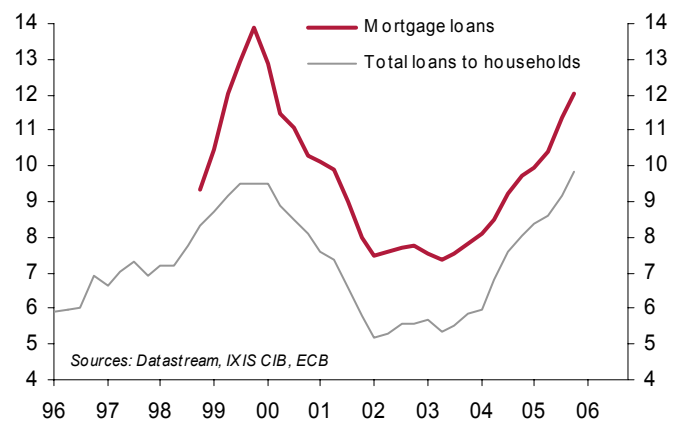


Chart 73A
Fiscal deficit (as % of GDP)

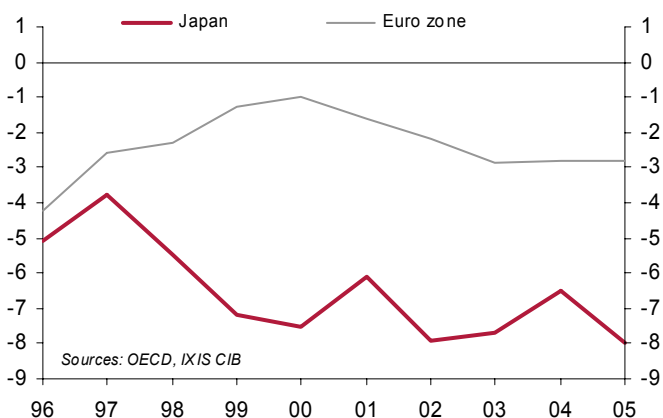
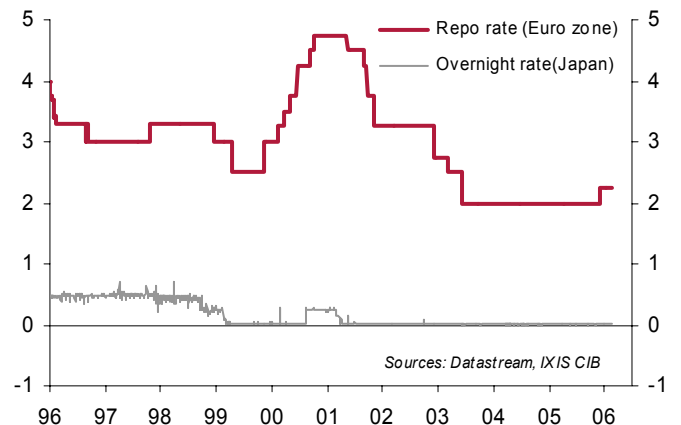


Chart 73B
Key intervention rates

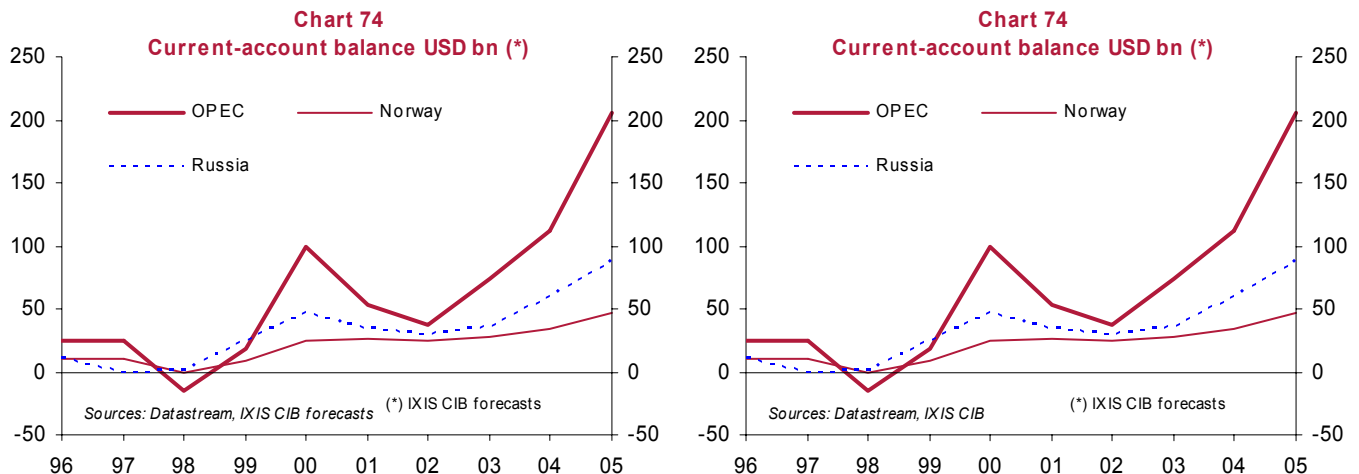


All in all, we can definitely see in all these regions that the present situation in terms of savings, investment and economic policies mean that one can hardly imagine how savings could fall or investment rise, in reaction to an increase in savings in the United States.

This assessment is made more convincing by the observation that changes in income sharing between countries and between economic agents favour saving and discourage demand.

This is first the case between countries: the rise in oil prices (commodity prices) transfers income from countries that consume commodities, which would have mostly spent this income, to producer countries that save a significant part of it (Chart 74).

This is also the case between economic agents: in many countries (United States, Japan, Germany for example), the weakening in labour's bargaining position, due to globalisation and offshoring has resulted in a **distortion of income sharing in favour of profits (Chart 75)**, which generates very few additional investments, but leads to a rise in corporate savings and the self-financing rate.



The rise in commodity prices and globalisation therefore has transferred income to countries and economic agents whose propensity to spend is weak, and this developments fuels the situation of excess savings.

We have therefore seen that:

- **if the monetary policy of the United States led to an increase in (household) savings, in the rest of the world the savings rate would have to decrease, or the investment rate would have to increase, in order to prevent a worsening in the situation of excess global savings;**
- **but a fall in global savings** (outside the United States) **or an increase in global investment** (once more outside the United States) were **unlikely**, in view of:
 - the causes of high savings, in China and other Asian emerging countries, or sluggish investment (euro zone);
 - the lack of economic policies that could drive savings downwards or sustain investment in Japan and the euro zone;
 - **income sharing between countries** (resulting from the rise in commodity prices) **or between households and companies** (with the loss of labour's bargaining power) that is **unfavourable for demand**.

Thus, there are grounds to fear that a rise in savings in the United States would go hand in hand with a pronounced reduction in global growth, because of the weight of the United States in global GDP and in global exports.

A “soft” correction of imbalances in savings, and accordingly in the excess liquidity related to the financing of the external deficit of the United States by emerging countries, is therefore unlikely.

We will now move on to the third global imbalance: that in public finances in many countries.

8 – A “soft” or expensive correction in terms of growth — or no correction at all leading to a crisis — in fiscal deficits?

Let us now look, to finish, at the last global imbalance: that found in public finances.

A “soft” correction would consist of a significant reduction in fiscal deficits, in the countries where this is necessary, without any shortfall in growth or jobs.

This poses first and foremost the question of the capacity of the governments of these countries to use **Ricardian neutrality**.

First a definition: the presence of a non-Ricardian effect of fiscal policies (i.e. the lack of Ricardian neutrality) implies that a reduction in government expenditure reduces demand and production. On the contrary, in the "Ricardian" case, a contraction in government expenditure does not change demand because private economic agents expect tax cuts in the future and, therefore, increase their (private) demand by the same amount as the decline in government expenditure.

Governments obviously hope when they have to reduce fiscal deficits and public debts that Ricardian neutrality will kick in to ensure that this adjustment in fiscal policy does not lead to a contraction in activity.

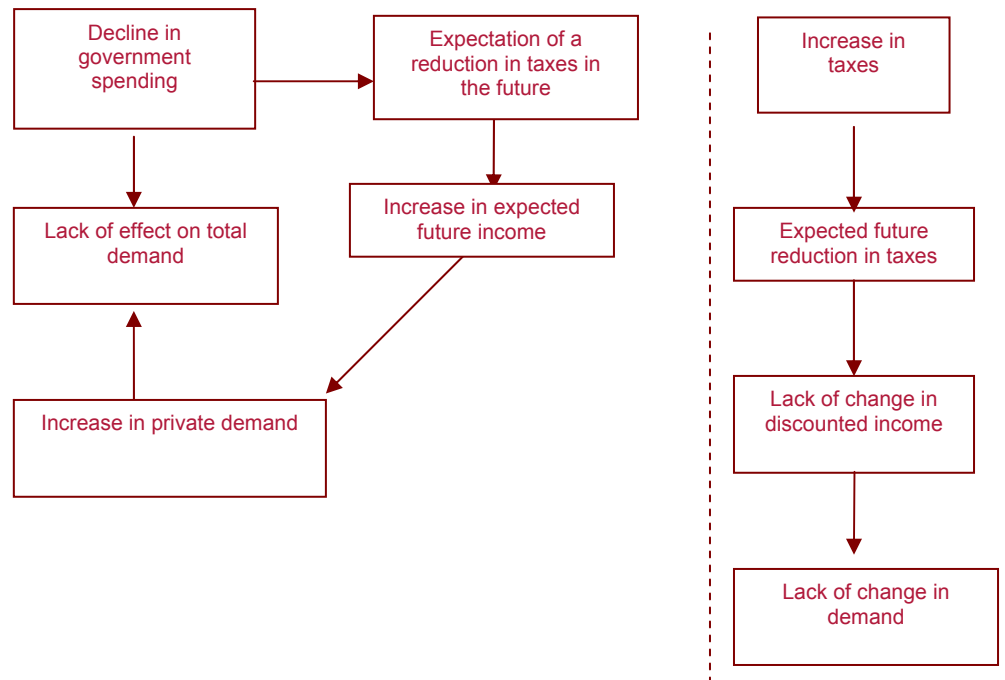
It is therefore important to know in what cases there is Ricardian neutrality or not: the following questions spring to mind:

- is the horizon of private economic agents long enough and are they rational enough to ensure Ricardian neutrality?
- is there asymmetry between increases and contractions in government expenditure? Is there a link with the seriousness of the budgetary situation?
- is there an effect exerted by the nature of the change in fiscal policy (taxes or government expenditure)?
- is there a difference between small and major fiscal adjustments? Is this difference linked to the credibility of the performance of these adjustments?
- is there a link between Ricardian neutrality (or lack of Ricardian neutrality) and the monetary policy that is implemented? What is the effect of changes in interest rates related to the change in fiscal policy?

Let us first review how Ricardian neutrality operates.

If there is “Ricardian neutrality”, changes in fiscal policies (in government expenditure) and **in the tax burden have no impact on total demand and activity**. The process is described in **Diagram 1**.

Diagram 1
Ricardian neutrality in the case of fiscal adjustment



If private economic agents are rational, they expect **a decline in government expenditure will result in the future in a reduction in taxes** to stabilise the public debt and, therefore, they increase their demand when government expenditure is reduced.

If there were **an increase in the near term in taxes**, there would be the expectation of a **decline in future taxes**, and the reduction in taxes would not stimulate private demand.

The presence of Ricardian neutrality is obviously very favourable if fiscal deficits have to be cut, since this reduction can be achieved by lowering government expenditure without any contraction in total demand and activity.

The approaches suggested by economic literature to explain possible non-Ricardian neutrality are as follows:

- **myopia of private economic agents**: they do not realise that a modification in government expenditure will lead to a change in the tax burden in the future;
- **the short horizon of private economic agents**; either they think that the fiscal adjustment will occur belatedly, **or they are subject to liquidity constraints** (if they receive government transfer payments, they will then spend them);
- if the lack of magnitude of fiscal adjustments, in opposition to major fiscal adjustments, does not show the expected link with the tax burden, it hurts the credibility of the adjustment (for example in the case of a small decline in the fiscal deficit);
- we will now move on to a point that is related to the previous one, i.e. faced with a **low level of public debt, and a “normal” budgetary situation**, by contrast with a **crisis situation**, private economic agents may not expect a future fiscal adjustment;

- **an increase and a reduction in government expenditure can be perceived differently**: for example, a rise combined with a high level of public debt probably leads to Ricardian neutrality because eventual stabilisation of the debt becomes inevitable; whilst this would not be the case with a contraction;
- **a different perception of changes in taxes and changes in government expenditure**, as the latter are seen as more permanent and more sustainable;
- **the lack of any monetary accompanying measures**; since a monetary (or an exchange-rate) policy that helps ensure a change in the savings rate operates in favour of neutrality: for example, in the event of a reduction in the fiscal deficit, a decline in interest rates reduces the private savings rate and operates in favour of “apparent neutrality”. A change in interest rates can also result from a **change in the risk premium** owing to a modification in monetary policy.

One can thus, by contrast, reach Ricardian neutrality:

- when private economic agents draw on long forecasting horizons to plan and are rational;
- when fiscal adjustments are substantial, in a difficult budgetary situation, and if they are credible and expected to last;
- if there are monetary measures taken to complement the fiscal adjustment or if it implies a change in interest rates.

The size of the variation in government expenditure therefore plays an important role since it affects:

- **the visibility** of the modification in fiscal policy;
- **the credibility** of the budgetary adjustment, i.e. the extent to which it is expected to last.

Let us look at two cases of major fiscal adjustment that will illustrate these points: the **cases of Canada and Sweden**.

(i) Canada

The reduction in the fiscal deficit was impressive in **Canada** from **1992 to 1997 (Chart 76A)** starting from a very high level of the deficit, i.e. 9% of GDP. It was linked to a severe reduction in government expenditure (**Chart 76B**) and occurred between 1993 and 1995, and again in 1997 during a period of robust growth (**Chart 76C**), with a reduction in unemployment and **robust job creation (Chart 76D)**, despite the contraction in public-sector employment (**Chart 76E**). There was also — and this accounts for the analysis in terms of Ricardian neutrality — a **sharp decline in the household savings rate** from 1992 to 1997, which drove consumption growth well above growth in income (**Chart 76F**). In the same period, profitability improved significantly in Canada, leading to a recovery in investments in 1993-94, while the real wage stagnated until 1996 (**Chart 76G**).

Chart 76A
Canada: Fiscal deficit and public debt
(as % of GDP)

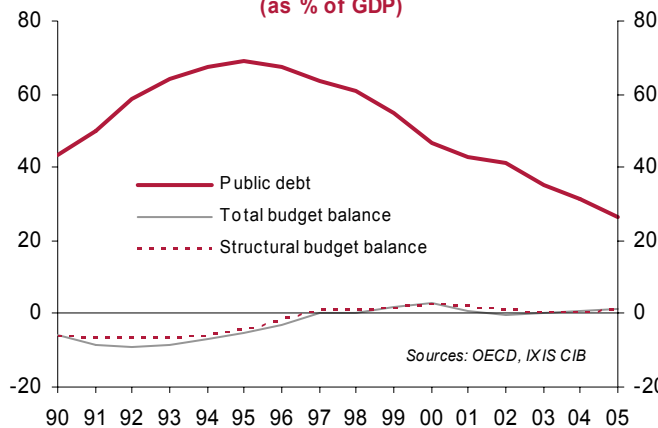


Chart 76B
Canada: Government expenditure, tax burden
and interest expenses on debt (as % of GDP)

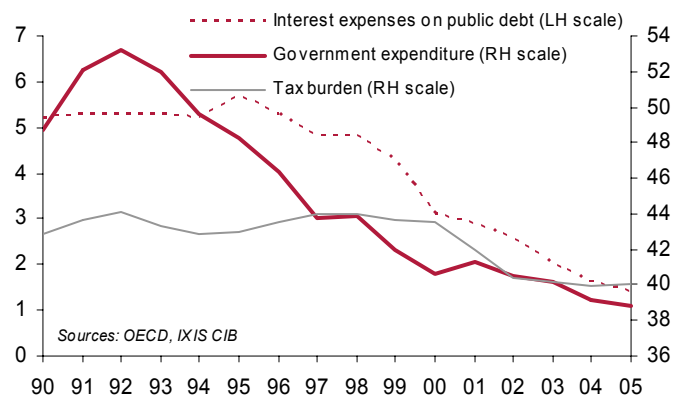


Chart 76C
Canada: GDP and domestic demand
(in volume terms, Y/Y as %)

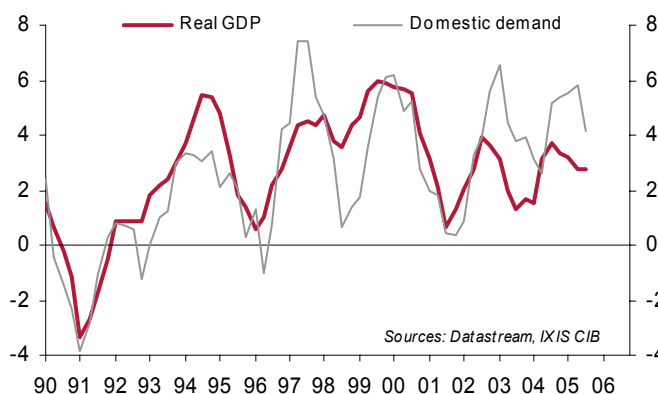


Chart 76D
Canada: Employment and joblessness

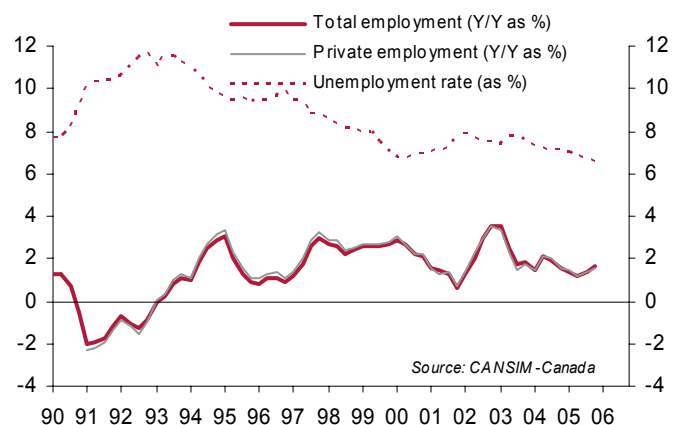


Chart 76E
Canada: Employment (in millions)

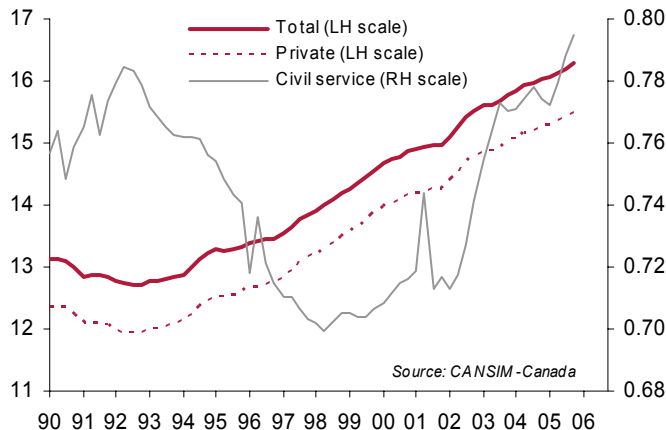


Chart 76F
Canada: Payroll, consumption, savings and
household investment

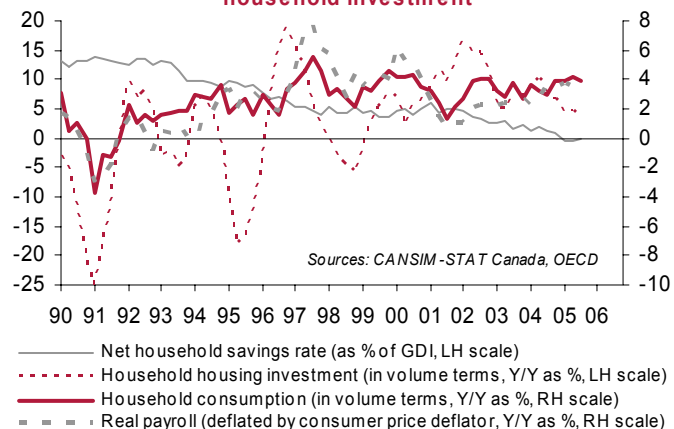
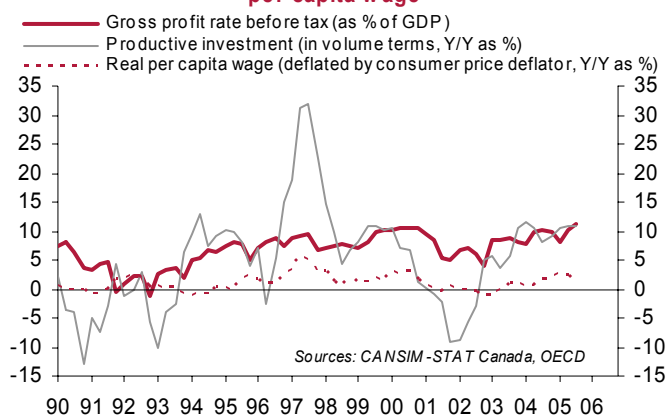


Chart 76G
Canada: Profits, productive investment and real per capita wage



Monetary policy, with an interruption during the rise in US interest rates, in 1994-95, as well as exchange-rate policy (Charts 76H and 76I) with a depreciation of more than 20% in the Canadian dollar helped paved the way for an upturn in investment and consumer loans (Chart 76J) as well as, above all, exports (Chart 76K).

Chart 76H
Canada: Interest rates

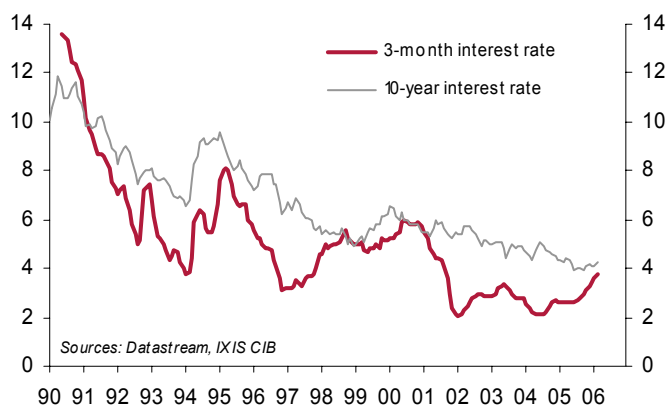


Chart 76I
Canada: Exchange rates*

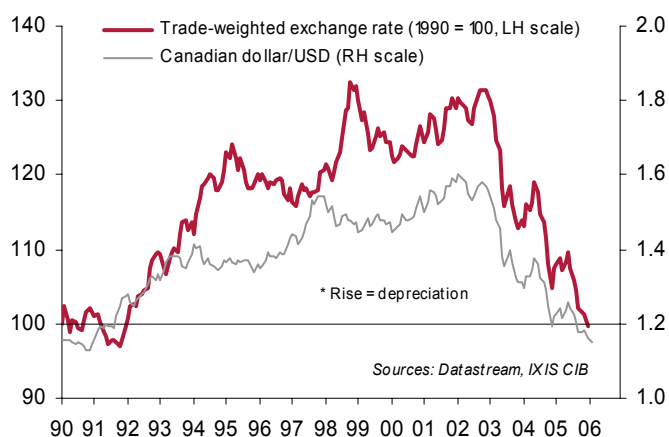


Chart 76J
Canada: Credit (Y/Y as %)

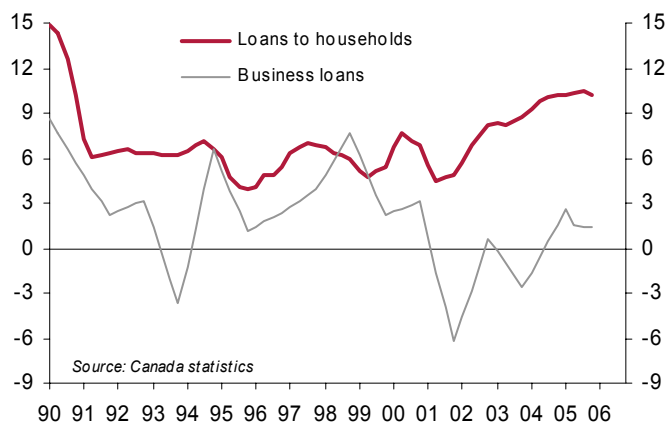
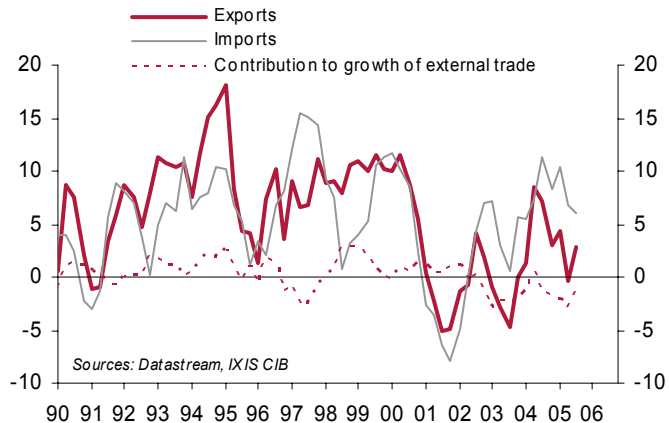


Chart 76K
Canada: External trade (Y/Y as %)



(ii) Sweden

The fiscal deficit was slashed by 14% of GDP in **Sweden between 1993 and 1998**, from a very high initial level of 12% of GDP (**Chart 77A**), and, as in Canada, resulted from the contraction in government expenditure (**Chart 77B**). As early as 1994, growth picked up (**Chart 77C**), and as early as 1993 **unemployment fell** (**Chart 77D**), with robust private-sector job creation that far outweighed job losses in the public sector. **The household savings rate fell between 1993 and 1999** (**Chart 77E**), but in Sweden profitability made no contribution to the recovery in demand.

Chart 77A
Sweden: Fiscal deficit and public debt
(as % of GDP)

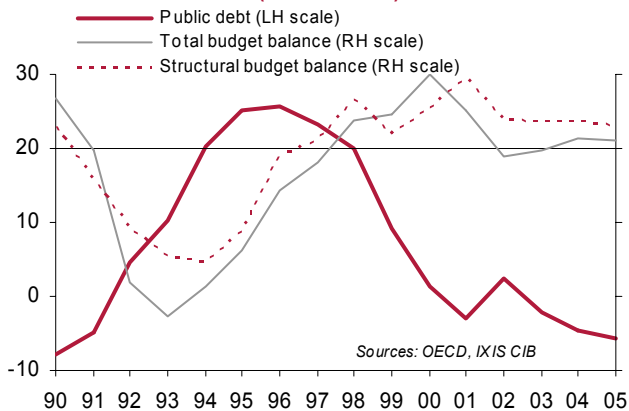


Chart 77B
Sweden: Government expenditure, tax burden and interest expenses on debt
(as % of GDP)

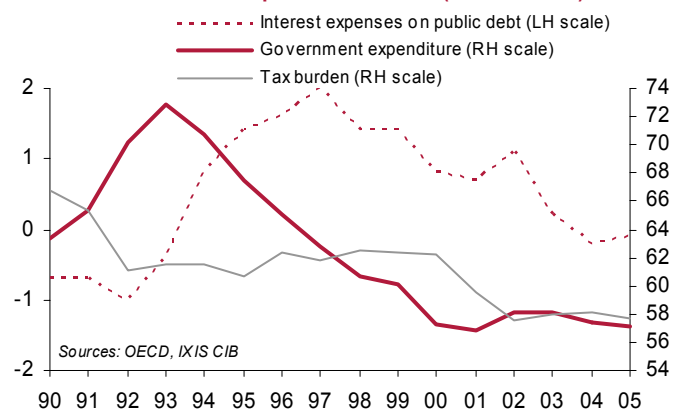


Chart 77C
Sweden: GDP and domestic demand
(in volume terms, Y/Y as %)

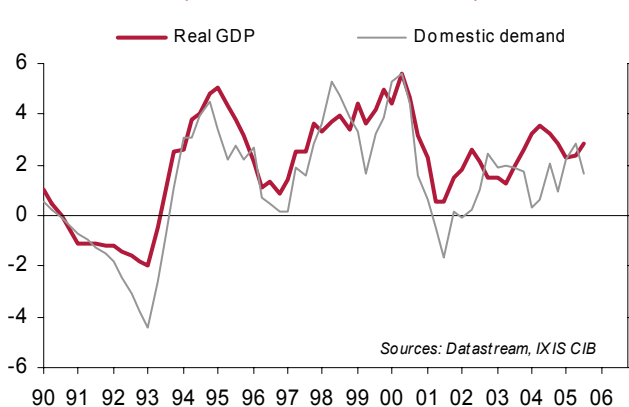


Chart 77D
Sweden: Employment and joblessness

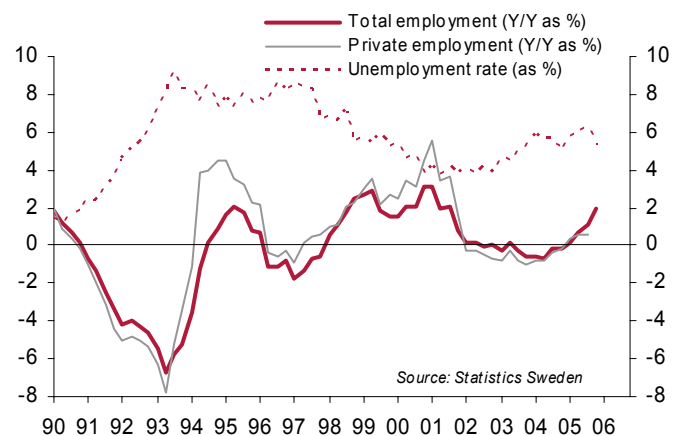
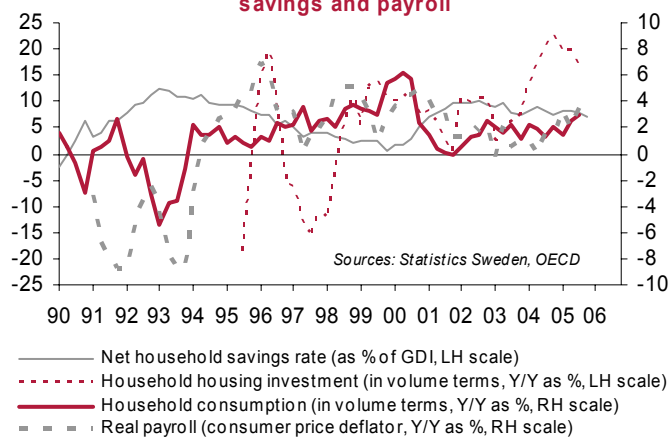


Chart 77E
Sweden: Household investment, consumption, savings and payroll



Monetary policy turned expansionary while it was previously restrictive (**Chart 77F**) and the Swedish krona depreciated 30% between 1992 and 1993 (**Chart 77G**), leading to a pronounced recovery in exports and a positive contribution of foreign trade to growth (**Chart 77H**).

Chart 77F
Sweden: Interest rates

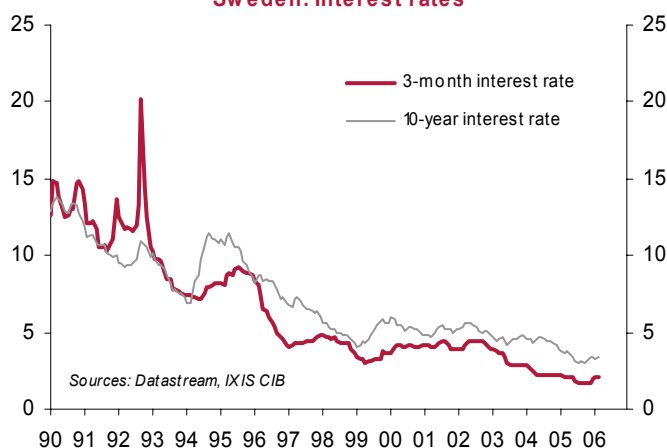


Chart 77G
Sweden: Exchange rate*

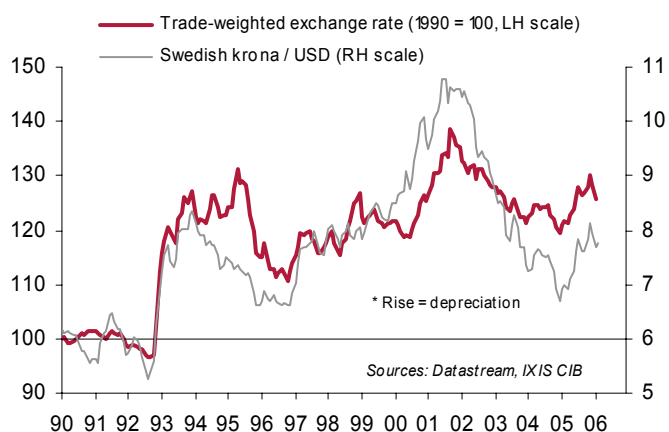
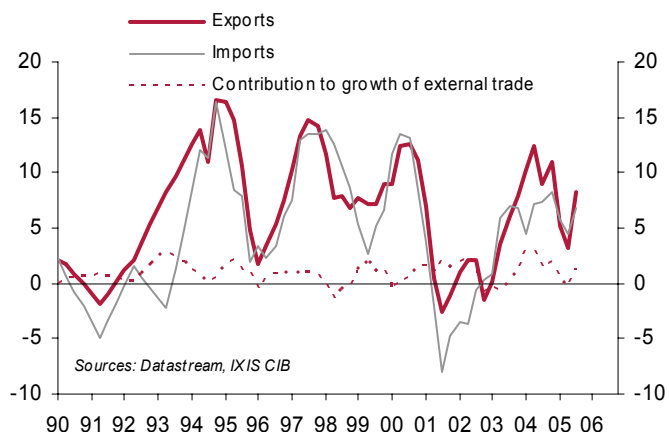


Chart 77H
Sweden: External trade (Y/Y as %)



Let us summarise the foregoing.

In both cases, i.e. Canada and Sweden:

- the starting point is a major deterioration in public finances;
- the fiscal adjustment is massive and primarily carried out via a reduction in government expenditure;
- there is a decline in the household savings rate.

Furthermore, there is:

- job creation and a decline in unemployment;
- robust growth during the fiscal adjustment;
- expansionary monetary and exchange-rate policies from the very beginning of the correction, resulting in a boost for exports and demand.

The foregoing confirms all the available studies: **fiscal deficits can be cut without affecting growth, by driving down the household savings rate and by reducing unemployment** if:

- the adjustment is substantial;
- the initial situation of public finances is very bad;
- the deficit is reduced by a contraction in government expenditure;
- monetary and exchange-rate policies are stimulatory from the outset.

Can one hope to see these conditions met and, therefore, Ricardian neutrality play in EMU countries?

Such a development is highly unlikely, since euro-zone countries have implemented a very progressive approach to the reduction of deficits (**Charts 78A and 78B**), while public opinion is not necessarily aware of the seriousness of the situation, and one fails to see how the ECB could back the idea of reducing fiscal deficits by implementing a stimulatory monetary policy.

Chart 78A
Total fiscal deficit (as % of GDP)

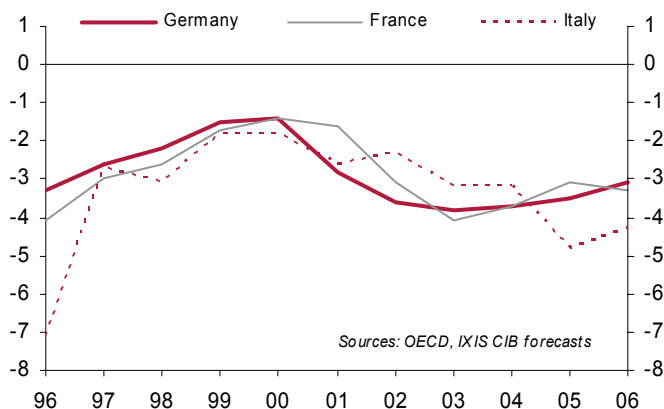
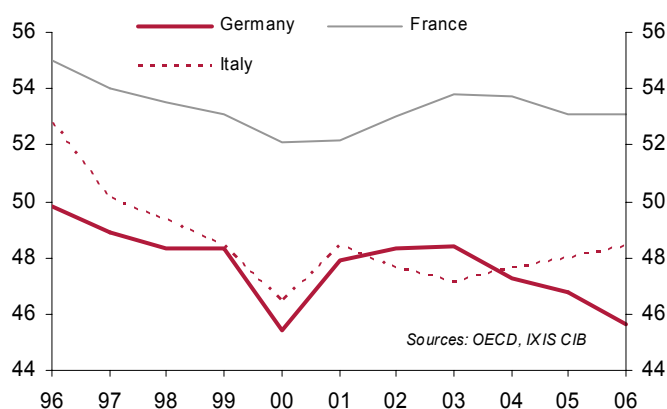
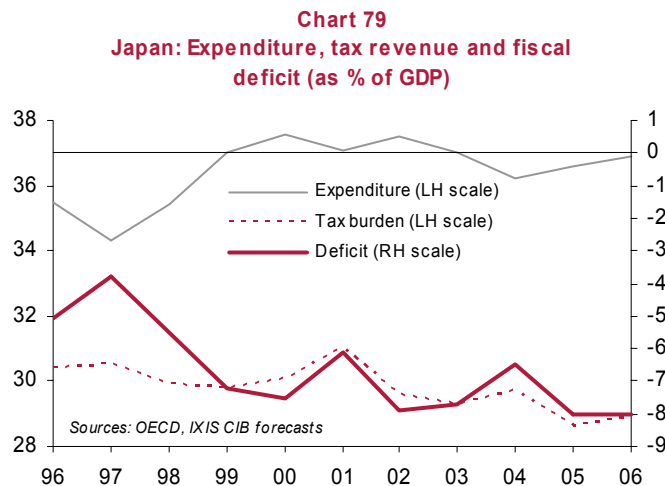


Chart 78B
Total government expenditure (as % of GDP)



Can one hope for Ricardian neutrality to play in the future in Japan?

This is also hard to believe, since the method currently considered for the reduction of fiscal deficits consists of an increase in the tax burden, with the hike in the VAT rate, not by a reduction in government expenditure (**Chart 79**), and this is also the case in Germany with the prospect of a three-percentage point hike in VAT rates in 2007.



The more likely outcome would appear to be:

- the lack of Ricardian neutrality, i.e. a real high cost of the reduction in fiscal deficits, in the euro zone and Japan;
- or even, by consequence, a weak fiscal adjustment with the related risk described above of a financial crisis (rise in long-term interest rates).

9 – The most serious scenario: A meltdown in the dollar

We have seen above that during a long period of time emerging countries will refinance the US trade deficit by accumulating official reserves. **During this long period of time, the US trade deficit will further worsen:**

- **domestic demand in the United States is underpinned** by the low level of long-term interest rates and the rise in asset prices, due to the purchases of US assets by non-residents, in particular by central banks. For the refinancing of the external deficit of the United States described above leads to substantial purchases of US bonds by non-residents (**Chart 80**), thus, as seen above, to a decline in dollar long-term interest rates and a rise in asset prices, notably in property prices that increases demand via a wealth effect, and by paving the way for a rapid increase in indebtedness;
- US industry (ex IT) has been unable, since 1997-98, to meet domestic demand (for factory products), and growth in domestic demand has led to a rise in imports, as has been seen since 1998 (**Chart 81**); the market share of the United States in world trade, furthermore, has further dwindled (**Chart 82**).

Chart 80
United States: Net purchases of Treasuries and corporate bonds (as % of GDP)

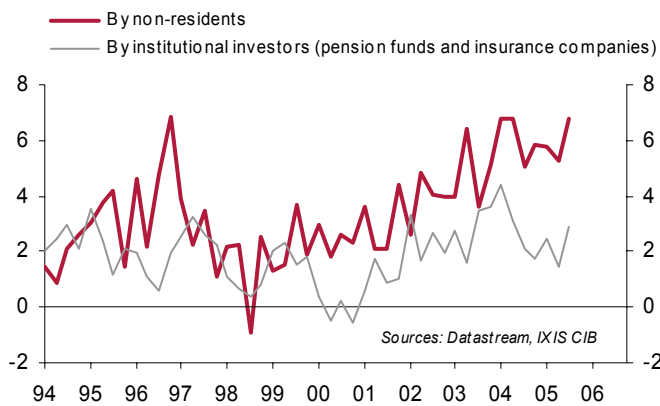


Chart 81
United States: Industrial production, domestic demand and imports (in volume terms, 1994 = 100)

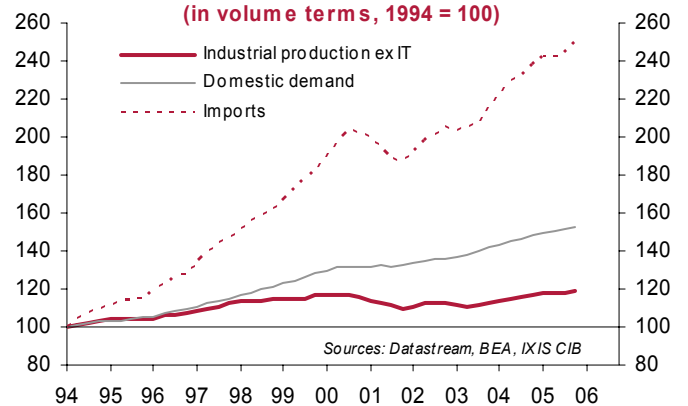
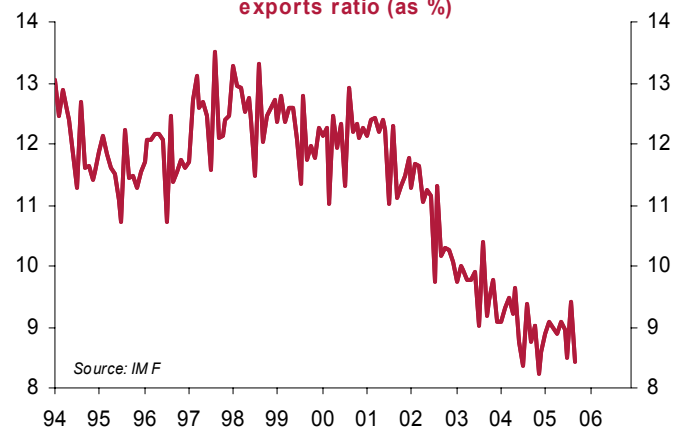
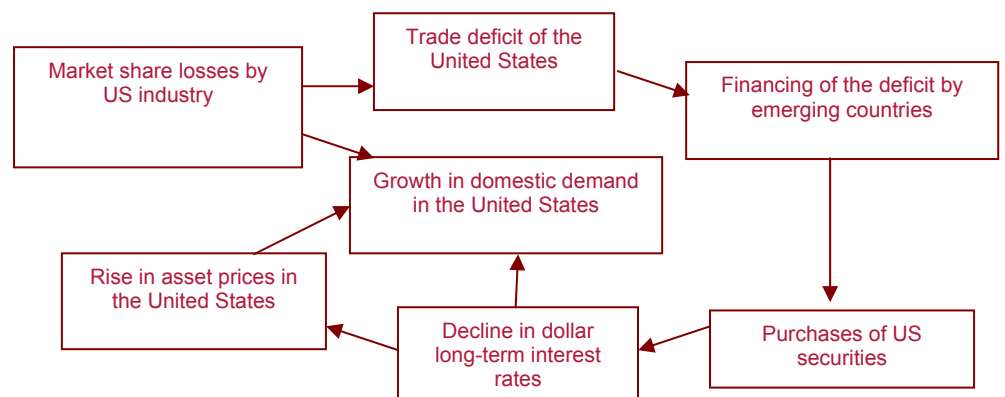


Chart 82
Exports from the United States-to-global exports ratio (as %)



We therefore have the following cause-and-effect sequence:



This cause-and-effect sequence, which is durable as seen above, will lead to a substantial external deficit of the United States when at a point in time, which is remote in the future, when emerging countries will stop financing the US trade deficit.

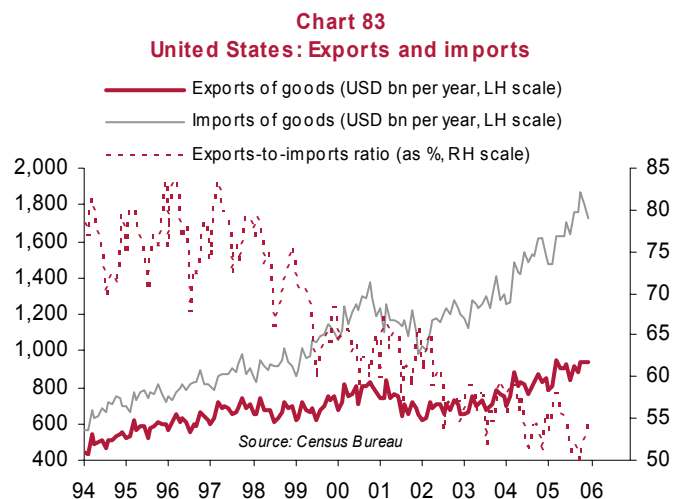
Let us summarise:

- one will have to wait for a long time before emerging countries stop refinancing the external deficit of the United States;
- during this period, the US external deficit will worsen.

This might lead to a situation where, when emerging countries stop financing the US external deficit, **a slide in the dollar will no longer improve the foreign trade of the United States.**

This is because:

- **exports represent an increasingly small part of imports (Chart 83).** In consequence, **if the dollar weakens, the effect of the rise in import prices linked to the exchange rate will be substantial;**



- **if the US economy is no longer competitive, and can no longer meet domestic or external demand, the elasticity of import prices and export prices in volume terms of the United States becomes weak.**

If the size of US imports is far larger than that of exports, and if a depreciation in the dollar hardly improves the foreign trade of the United States, a depreciation in the dollar then hurts, and no longer improves, the trade balance of the United States.

Econometric estimates covering the period 1994-2005 show:

- an elasticity of import prices ex energy in the United States to the dollar's nominal trade-weighted exchange rate of 0.57;
- an elasticity of export prices to the dollar's nominal trade-weighted exchange rate of 0.55;
- a price-elasticity of exports in volume terms in the United States of 0.27;
- a price-elasticity of imports in volume terms in the United States of 0.12.

Already now, a depreciation in the dollar would hurt the trade balance of the United States, according to these estimates:

- a 10% depreciation in the dollar would increase exports in value terms by 8.2%;
- it would increase imports in value terms by 4.5%.

But imports are twice as large as exports.

Our argument is therefore as follows:

1. **The equilibrium between the United States and emerging countries (China) under which emerging countries accumulate reserves to finance the external deficit of the United States is durable.**
2. As long as this equilibrium lasts, **the external deficit of the United States will grow further**; purchases of US securities by emerging countries drive down dollar long-term interest rates and asset prices upwards in the United States, and this bolsters US domestic demand. The US industry is unable to meet demand.
3. When this equilibrium disappears, a depreciation in the dollar will no longer improve the foreign trade of the United States because of the small size of exports in comparison with imports and the loss of industry's capacity to meet demand: **the price effect of a devaluation of the dollar will outweigh the volume effect.**
4. **In consequence, the drying-up of capital inflows from emerging countries into the United States could lead to a meltdown in the dollar, since the more the dollar falls, the more the US trade deficit will deteriorate.**

Conclusion: Will global imbalances end in tears?

The three categories of global imbalances we have studied (imbalances in current-account balances, excessive creation of liquidity and excessive fiscal deficits):

- are serious;
- could lead to financial crises;
- **in all likelihood, will not be overcome by a soft correction.**

If there were to be a soft correction of the savings imbalances, a fall in the savings rate in the rest of the world would be needed when the savings rate does rise in the United States, and we believe this is unrealistic.

If there were to be a soft correction of fiscal deficits (in Europe and Japan), Ricardian neutrality would have to operate, and this is unlikely if the adjustments are progressive, or are achieved via an increase in the tax burden, or are not accompanied by an expansionary monetary policy.

If there were to be a soft correction of the external deficit of the United States, a gradual depreciation in the dollar would need to improve the trade balance of the United States, and this is no longer the case because of the deterioration in the situation of US industry and the huge size of imports in comparison with exports.

There are therefore grounds to fear in the future a severe contraction in global real activity:

- if the global savings rate rises in line with that of the United States;
- if private demand does not increase when fiscal deficits are reduced;
- if a depreciation in the dollar no longer improves the trade balance of the United States.